

InTouch

Volume 15 NO. 3, Special Issue, 2015



Participating in
Preventive Vigilance
gives good &
Effective Governance

VIGILANCE AWARENESS WEEK 2015

26th October to 31st October 2015



ऑयल इंडिया लिमिटेड

(भारत सरकार का उद्यम)

Oil India Limited

(A Government of India Enterprise)

Vigilance Pledge

प्रतिज्ञा

हम, भारत के लोक सेवक, सत्यनिष्ठा से प्रतिज्ञा करते हैं कि हम अपने कार्यकलापों के प्रत्येक क्षेत्र में ईमानदारी और पारदर्शिता बनाए रखने के लिए निरंतर प्रयत्नशील रहेंगे। हम यह प्रतिज्ञा भी करते हैं कि हम जीवन के प्रत्येक क्षेत्र से भ्रष्टाचार उन्मूलन करने के लिए निर्बाध रूप से कार्य करेंगे। हम अपने संगठन के विकास और प्रतिष्ठा के प्रति सचेत रहते हुए कार्य करेंगे। हम अपने सामूहिक प्रयासों द्वारा अपने संगठनों को गौरवशाली बनाएंगे तथा अपने देशवासियों को सिद्धांतों पर आधारित सेवा प्रदान करेंगे। हम अपने कर्तव्य का पालन पूर्ण ईमानदारी से करेंगे और भयय अथवा पक्षपात के बिना कार्य करेंगे।

PLEDGE

We, the public servants of India, do hereby solemnly pledge that we shall continuously strive to bring about integrity and transparency in all spheres of our activities. We also pledge that we shall work unstintingly for eradication of corruption in all spheres of life. We shall remain vigilant and work towards the growth and reputation of our organization. Through our collective efforts, we shall bring pride to our organizations and provide value based service to our countrymen. We shall do our duty conscientiously and act without fear or favour.



CONTENTS

Messages	3-16
Editorial	17
The unusual chromosome : a case to nip in the bud	18-19
Corruption – An everyday problem with everyday solutions	20-21
Knowledge management and boardroom	22-25
Obesity	26-29
Preventive vigilance & big data	30-31
M-Governance will reduce rampant corruption	32-33
Preventive vigilance and its impact on curbing corruption and achieving good governance in oil.	34-37
प्यासी नदी – एक तकनीकी विश्लेषण	38-40
Clean energy source and transitional challenges	41-45
VIGILANCE : A perspective	46-47
Importance of internal estimates in public procurement	48-50
Preventive vigilance an effective tool of good governance	51-53
Using pipeline technology as an economic and ecofriendly	
Mode of transportation beyond hydrocarbon industry	54-61
My rendezvous with Vigilance	62-63
Temptation galore	64-65
When nobody is more equal than others !	66-68
The importance of business ethics	69-70
The Grain trade of Rome : Learning for the modern management in the perspective of vigilance	71-73
Living for or a few dollars more or ...?	74-75
The essence of good governance	76-78
Curbing Corruption – "is it an impossible reality?"	79-81
Combating Corruption – Technology as an enabler	82-83
Ethics and corruption in education	84-86
Right Administration	87
My Family History	88-89
Famous inspiring quotes by Dr. A.P. J. Abdul Kalam, the missile man of India	90-91
Corruption	92
योगासन	93
शुभ और अशुभ	94
ऑयल में रोता हुआ भ्रष्टाचार	95
Conscience, the Defence Against Corruption	96

*Keep your thoughts positive
because your thoughts
become your words.*

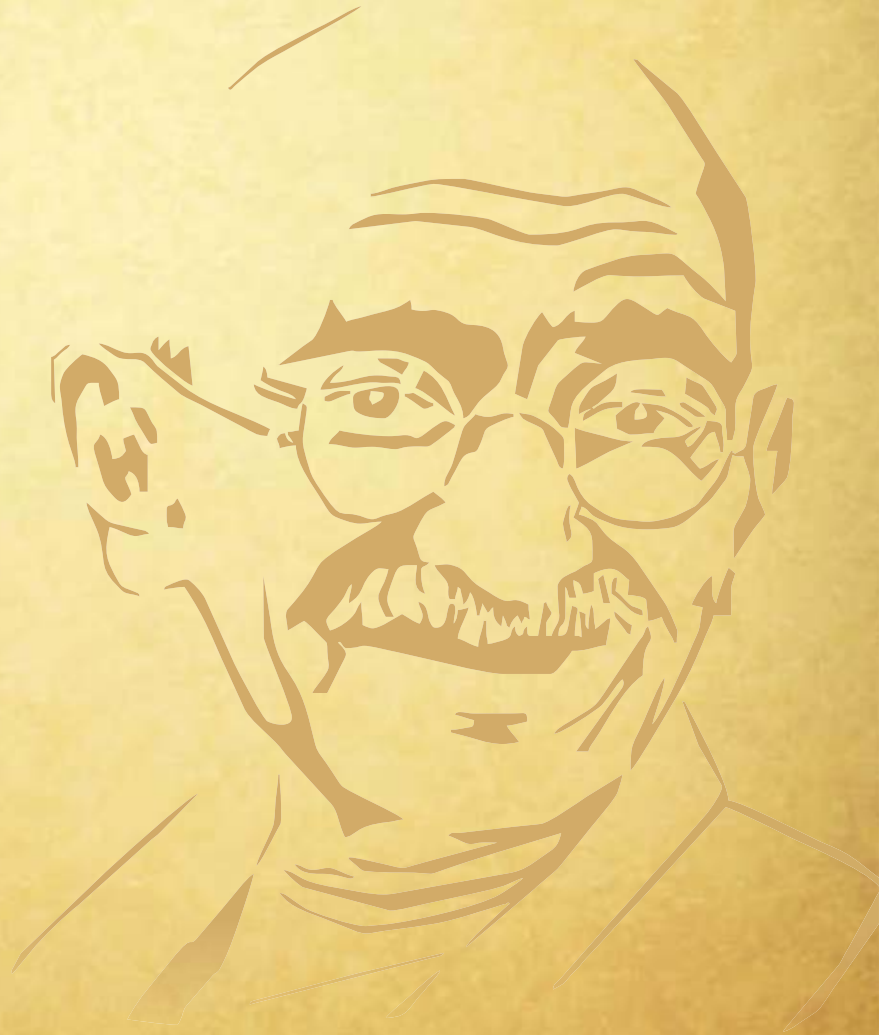
*Keep your words positive
because your words
become your behavior.*

*Keep your behavior positive
because your behavior
becomes your habits.*

*Keep your habits positive
because your habits
become your values.*

*Keep your values positive
because your values
become your destiny*

— Mahatma Gandhi





राष्ट्रपति, भारत गणतंत्र
President Republic of India

MESSAGE

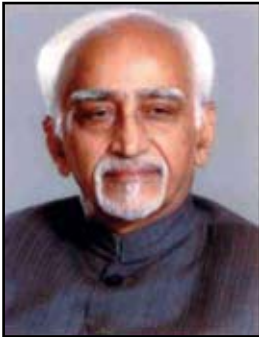
I am happy to learn that the Central Vigilance Commission is observing Vigilance Awareness Week from October 26 to October 31, 2015.

Corruption affects the growth of a nation, reduces the Government's income and creates inequalities in distribution of income and wealth. It is a major factor hindering development. It is critical that awareness is generated and public opinion developed on the evils of corruption. Corruption needs to be treated like a disease and focus should be on prevention. It is appropriate that the Commission has adopted the theme of "Preventive Vigilance as a tool of Good Governance" for the current year. The measures adopted for Preventive Vigilance would help not only reduce corruption but also contribute towards good governance by way of increasing efficiency, transparency and adherence to rule of law. I am happy that the Central Vigilance Commission is also focussing on students and youth for creation of awareness against corruption and promotion of good governance.

I extend my greetings to all those associated with observance of the Vigilance Awareness Week, 2015. Let us reaffirm our commitment to make India corruption free and engage in ceaseless efforts to achieve this goal.

(Pranab Mukherjee)

New Delhi
October 6, 2015



उप-राष्ट्रपति, भारत

Vice-President of India

MESSAGE

I am happy to learn that this year Vigilance Awareness Week is being observed by the Central Vigilance Commission (CVC) from October 26 - 31, 2015 on the theme 'Preventive Vigilance as a tool of Good Governance'.

Preventive vigilance comes into play before any act of corruption takes place. The system itself, through internal checks and balances, can ensure that acts of corruption do not take place. It is important to create awareness among Government Departments, Institutions and general public to implement preventive measures effectively, so that transparency and accountability can be maintained in governance and corruption eliminated at every level. Since its inception the CVC has played a significant role in the promotion of transparency and efficiency in the public sector.

Let us take a pledge on this occasion to remove the menace of corruption from our society.

(M. HAMID ANSARI)

**New Delhi
30th September, 2015**



प्रधान मंत्री, भारत
Prime Minister of India

MESSAGE

I am happy to learn that Vigilance Awareness Week is being observed this year from the 26th to 31st October.

I am also pleased to note that the Central Vigilance Commission has chosen "Preventive Vigilance as a tool of Good Governance," as this year's theme. I am sure, the observance of Vigilance Awareness Week on this theme shall help highlight the importance of preventive vigilance in curbing administrative malpractices, and providing good governance.

On this occasion, I convey my best wishes for the success of Vigilance Awareness Week.

(Narendra Modi)

New Delhi
21 September, 2015

H. L. Dattu
Chief Justice of India



**5 Krishna Menon Marg
N'ew Oelhi-110 011
Tel.: 91-11-23012378 (R)
Telefax: 91-11-23012377**

MESSAGE

I feel privileged to have been called upon by the Central Vigilance Commission to pen down a message for the Vigilance Awareness Week which is being organized from 26th October, 2015 to 31st October, 2015 with 'Preventive Vigilance as a tool of Good Governance' as the main theme.

With focus on bringing awareness among college and school students against corruption and how preventive vigilance could be an effective tool for good governance, the Central Vigilance Commission proposes to organize debates, elocution contests, seminars and panel discussions in more than 100 cities and towns and carry out media campaign during the Vigilance Awareness Week.

The story of any great nation is not merely the summation of its triumphs but also of its challenges and struggles. Today, as India stands on the brink of true greatness, the deep-rooted malaise of corruption is perhaps the biggest challenge that we face. The goals of growth and development that we have set for ourselves can only be achieved through fair and efficacious governance which, in turn, requires robust and independent political and administrative institutions.

Corruption not only impedes efficient governance, but is also a threat to our democratic ideals and the moral fabric of our polity. It is because of this reason that punishing individual cases is no longer sufficient. Prevention is the only effective remedy against the malaise of corruption. What is required is constant and tireless vigilance, not only over the actions of those around us, but over ourselves. Let each and every citizen of this Nation take an oath to police himself, in thought, word and action, that we may, together, step forward into a new tomorrow filled with hope, where the ideals of trust and integrity stand firm as the pillars of our collective public lives.

I wish the Central Vigilance Commission all success In this endeavor.

(H. L. DATTU)

राजनाथ सिंह
RAJNATH SINGH



गृह मंत्री
भारत
नई दिल्ली-110001
HOME MINISTER
INDIA
NEW DELHI-110001

MESSAGE

I am happy to know that the Central Vigilance Commission (CVC) is organizing a Vigilance Awareness Week during 26th October to 31st October, 2015 on the occasion of Birthday of Sardar Vallabh Bhai Patel on 31st October and the theme "Preventive Vigilance as a tool of Good Governance, chosen is quite apt and appropriate.

I am pleased to note that CVC is focusing on bringing awareness among college and school students against corruption so as to build a corruption free country.

I am delighted to note that apart from organizing debates, elocution contests, seminars and panel discussions across the country, CVC is also planning to carry out media campaign through Door Darshan to spread awareness of the programme.

On this important occasion, I congratulate the Central Vigilance Commission and its team for their noble venture.


17.10.15

(RAJNATH SINGH)

Shashi Kant Sharma
 भारत के नियंत्रक - महालेखापरीक्षक
 COMPTROLLER & AUDITOR GENERAL OF INDIA
MESSAGE

I am happy to know that the Central Vigilance Commission is observing Vigilance Awareness Week on the theme "Preventive Vigilance as a tool of Good Governance" from 26th to 31st October 2015.

Accountability and transparency are two important pillars of good governance, and without them effective and responsive government is not possible. They provide the necessary framework for combating corruption in administration. Corruption is a serious and complex malaise which is to be fought with multifaceted strategies. Preventive vigilance is one such strategy. It aims at constant review of rules, procedures and practices which are susceptible to corruption. Over the years, the Central Vigilance Commission has taken a lot of initiatives to introduce the concept of Preventive Vigilance among the Government entities.

I wish that the Vigilance Awareness Week be a great success and extend my warm greetings and felicitations to the entire Central Vigilance Commission fraternity.

A handwritten signature in blue ink, appearing to read 'Shashi Kant Sharma'.

(Shashi Kant Sharma)
 Comptroller & Auditor General of India

Place: New Delhi
 Dated: 29th September 2015

Telegraphic Address :
"SATARKTA: New Delhi

E-Mail Address
cenvigil@nic.in

Website
www.cvc.nic.in

EPABX
24600200

फैक्स/Fax: 24651186

केन्द्रीय सतर्कता आयोग
CENTRAL VIGILANCE COMMISSION



सतर्कता भवन, जी.पी.ओ. कॉम्पलेक्स,
ब्लॉक-ए, आई.एन.ए., नई दिल्ली 110023
Satarkta Bhawan, G.P.O. Complex,
Block A, INA, New Delhi 110023

सं./No.015/VGL/065.....

दिनांक/Dated05/10/2015.....

MESSAGE

Vigilance Awareness Week - 26th October to 31st October 2015

Observance of Vigilance Awareness Week every year is one of the various outreach initiatives undertaken by Central Vigilance Commission in its endeavour to fight corruption and create awareness among the public servants as well as the citizens on the ill-effects of corruption and need for integrity. Co-operation of all stake holders is imperative in creating and promoting a culture of integrity, transparency and accountability, which would help fulfill the expectations of the citizens for a corruption free society.

The Commission has chosen "Preventive Vigilance as a tool of Good Governance" as the theme for the Vigilance Awareness Week for the current year. Corruption is one of the factors inhibiting Governance and preventive vigilance can play a prominent role in ensuring Good Governance. Good Governance plays a vital role in promoting economic development of the country and well being of the citizens.

Preventive vigilance is a package of measures to improve systems/procedures aimed at eliminating the scope for corruption and to aid the management to achieve optimum results. Identifying complex rules/procedures and simplifying the same, curtailing discretions, ensuring accountability, sensitizing the officials, facilitating a culture of honesty and promoting ethical practices, etc. are some of the measures. The Commission believes that good governance can be promoted by putting in place strong preventive vigilance measures.

The Commission requests all public authorities to undertake preventive vigilance measures enthusiastically to reaffirm our commitment to the cause of fighting corruption and to improve governance.

(T. M. Bhasin)
Vigilance Commissioner

(KV Chowdary)

Central Vigilance Commissioner

(Rajiv)
Vigilance Commissioner



उपेन्द्र प्रसाद सिंह
अध्यक्ष एवं प्रबंध निदेशक
Upendra Prasad Singh
Chairman & Managing Director

CMD/OIL/MSG
October 05, 2015



ऑयल इंडिया लिमिटेड

(भारत सरकार का उपक्रम)
प्लॉट नं० 1ए/1,
एस बी टॉवर (छटा तल),
सैक्टर-16-ए,
नोएडा - 201 301, उत्तर प्रदेश

OIL INDIA LIMITED

(A Government of India Enterprise)
Plot No. 1A/1,
S B Tower, (6th Floor)
Sector - 16A,
NOIDA - 201 301, U.P.
Tel. : +91-120-2488301
Fax : +91-120-2488427
E-mail : cmd@oilindia.in

MESSAGE

I am very happy to note that the Vigilance Department of Oil India Limited is celebrating the "Vigilance Awareness Week - 2015" from 26th October, 2015 to 31st October, 2015 with the theme of "Preventive Vigilance as a tool of Good Governance". The event highlights the importance of good governance, ethics and transparency in our official work. It is noteworthy that on the occasion the department is also publishing their journal "Intouch" which has always been popular journal with interesting and very relevant articles. I am sure that the authors of the articles in the journal will reach out to the readers to make them vigilant and upright in their work.

The Vigilance Department in Oil India has always been a very sincere and cohesive department and has always carried out its duties diligently and sincerely.

I convey my best wishes to all officers and staff of Vigilance Department and wish the Vigilance Awareness Week - 2015 a huge success.


(U.P. Singh)



आनंद कुमार, आई.पी.एस.

मुख्य सतर्कता अधिकारी

ANAND KUMAR, IPS

Chief Vigilance Officer



Message from CVO

ऑयल इंडिया लिमिटेड

(भारत सरकार का उपक्रम)

प्लॉट नं. 1ए/1, एस.बी. टॉवर (छठा तल)

सेक्टर - 16ए, नोएडा - 201 301 उत्तर प्रदेश

OIL INDIA LIMITED

(A Government of India Enterprise)

Plot No. 1A/1, S.B. Tower (6th Floor)

Sector-16A, NOIDA - 201301, U.P.

Tel. : +91-120-2488314 (O)

: +91-120-2419222 (O)

Fax : +91-120-2488315

e-mail : anandkumar@oilindia.in

The Vigilance Awareness Week is an event that provides the opportunity to rededicate ourselves in its way to remain vigilant at all times. The purpose of this Week is to bring about awareness among the people in the organization.

As you aware, the theme chosen by the Central Vigilance Commission for this year is "Preventive Vigilance as a tool of Good Governance". In our day to day life, it is established that prevention is better than cure, since the cost of treatment of a disease is always more than the cost of prevention. Similarly, the principle that prevention is better than cure is equally true in the area of vigilance. If the vigilance function fails then there is more probability of having corruption. It is rightly said that eternal vigilance is the price of liberty. Preventive Vigilance could broadly be described as a package of measures to improve systems and procedures in a way so as to reduce scope for discretion and eliminate corruption. Good Governance is about the processes of making good decisions and their effective implementation. The main characteristics of good governance are transparency, accountability, following rules of law, being inclusive, effective and efficient. Good Governance and Preventive Vigilance share several characteristics and therefore, preventive Vigilance needs to be implemented as a tool of Good Governance.

In one of the Vision Statement of OIL states that "OIL is a team committed to honesty, integrity, transparency and mutual trust creating employee pride". The vision is co-created for Good Governance. Therefore, on this occasion of Vigilance Awareness Week let us resolve to adopt high integrity, transparency, honesty which will go long way in enabling us to handle situations with fairness and transparency which will enhance the Company's reputation and its long term sustainability.

To increase awareness amongst all Oil-Indians, Vigilance Department is organizing a lot of events during the Vigilance Awareness Week, in all spheres of the organization. I urge you all to enthusiastically participate in the activities during the Week and make it a success.

(Anand Kumar, IPS)
Chief Vigilance Officer



श्रीमति आर. एस. बोरा

निदेशक (वित्त)

Mrs. R. S. Borah

DIRECTOR (FINANCE)



ऑयल इंडिया लिमिटेड

(भारत सरकार का उपक्रम)

प्लॉट न० 1ए/1, एस बी टॉवर (छटा तल),

सैक्टर-16-ए, नोएडा-201 301 (उ.प्र.)

OIL INDIA LIMITED

(A Government of India Enterprise)

Plot No. 1A/1, S B Tower, (6th Floor)

Sector - 16A, NOIDA - 201 301, U.P.

Tel. : +91-120-2488304

+91-120-2419239 (D)

Fax : +91-120-2488348

E-mail : rsborah@oilindia.in

MESSAGE

I am delighted to learn that the Vigilance Department at Oil India Limited is organising the "Vigilance Awareness Week" from 26th October to 31st October, 2015.

In the highly globalised world of today, business, whether private or government owned, must subscribe to the highest ethical standards in its operations and functioning. This is especially more pertinent in the financial realm of a corporation. Therefore, the role of proactive vigilance becomes much more critical and in the last few years we have seen the impetus on business corporations for becoming more open and transparent to internal Probity in various aspects of their functioning.

At Oil India Limited, we have time and again shown our commitment to ensuring that we adopt and implement the highest standards of corporate governance. The Vigilance Department of the company has been at the forefront of this endeavour. The Department through its proactive initiatives has helped the organisation adopt best practices in streamlining its various systems and processes and in ensuring the observance of best ethical conduct across its varied disciplines.

It is heartening to know that the Vigilance Department would be bringing out a special issue of its in-house journal, 'InTouch', to commemorate this occasion. I am sure this special issue of 'InTouch' will provide readers intensive and exhaustive information on the ground principles of Vigilance awareness.

I take this opportunity to express my immense appreciation for all the efforts put in by the OIL Vigilance team and convey my best wishes for the success of the "Vigilance Awareness Week", 2015.

(Mrs. R.S. Borah)

Director (Finance)



सुधाकर महापात्रा
निदेशक (अन्वेषण एवं विकास)
Sudhakar Mahapatra
Director (Exploration & Development)



ऑयल इंडिया लिमिटेड

(भारत सरकार का उपक्रम)
प्लॉट न० 1ए/1, एस बी टॉवर (छटा तल)
सैक्टर-16-ए, नोएडा-201 301(उ.प्र.)

OIL INDIA LIMITED

(A Government of India Enterprise)
Plot No. 1A/1, S B Tower, (6th Floor)
Sector - 16A, NOIDA - 201 301, U.P.
Tel. : +91-120-2419241
: +91-120-2419242
Fax : +91-120-2419225
E-mail : smahapatra@oilindia.in

MESSAGE

It is pleasing to learn that *Vigilance Awareness Week* will be held in Oil India Limited under the aegis of Vigilance Department from 26th to 31st October 2015 alongwith many other Government organizations of the country.

Transacting business entails fairness and transparenance stipulating existence of complementary policies, rules, practices and processes to support balancing the, interests of the different stakeholders. Governance structures and principles in the organisation identify the distribution of rights and responsibilities among different participants. Vigilance department has a significant role to play in facilitating improvement and changes in these structures and frameworks to cope with the changing scenario, thus preventing deviation from the ideal course. It is also equally relevant to keep in view that the main objective is to conduct and grow in business following ethical practices for which vigilance has a critical partnership role. In this context, the theme "*Preventive Vigilance as a Tool of Good Governance*" is in the right earnest and I am pretty sure that the commemoration will provide a platform to delve on numerous issues to bridge the existing lacuna.

I wish the organizers and the participants all success in their endeavour.

(S. Mahapatra)



विश्वजीत राय
निदेशक (मा. सं. एवं वाणिज्य विकास)
BISWAJIT ROY
DIRECTOR (HR & BD)



OIL/D(HR&BD)/01
October 15, 2015

ऑयल इंडिया लिमिटेड

(भारत सरकार का उपक्रम)

प्लॉट नं. 1A/1, एस. बी. टॉवर (6th फ्लोर)
सेक्टर-16A, नोएडा-201 301 उत्तर प्रदेश

OIL INDIA LIMITED

(A Government of India Enterprise)

Plot No. 1A/1,

S.B. Tower (6th Floor),

Sector-16A, NOIDA-201301 U.P.

Phone : +91-120-2488302

Fax : +91-120-2419230

e-mail : broy@oilindia.in

MESSAGE

It gives me immense pleasure to learn that the Vigilance Awareness Week, 2015 is going to be celebrated from 26th October to 31st October, 2015.

The Central Vigilance Commission, which is the apex body on vigilance matters in the country, sets a theme every year for the observance of the Vigilance Awareness Week and this year's theme is: "Preventive Vigilance as a tool of Good Governance". This not only captures the entire essence of proactive vigilance practices in the nation, but also motivates the countrymen to focus on the larger goal of bringing about good governance through adoption of best practices across various domains.

In today's diverse and complex business environment, where transparency and ethical business practices are the fundamental tenets of the industry, it has become extremely crucial that the business organizations follow ethical standards and responsible ways of doing business.

At Oil India Limited it has been our constant commitment to be a Company driven by its core values of integrity, transparency and honesty. The Vigilance department of the Company has been the torchbearer in this endeavour and has ensured better probity and accountability in the overall functioning of the organization, while being a catalyst in bringing about systems improvement at various levels in the organizational setup.

It is also encouraging to know that the Vigilance team at OIL, would be bringing out a special issue of its in-house journal, 'In-Touch', and thereby help spread the awareness on this important subject.

My best wishes to the team in their efforts towards organizing various activities and events during the course of the Vigilance Awareness Week, 2015 and at the same time request all members of the OIL fraternity to participate whole heartedly in various events during the week-long celebrations.

Thank you

(BISWAJIT ROY)
DIRECTOR (HR&BD)



प्रमोद कुमार शर्मा
निदेशक (प्रचालन)
Pramod Kumar Sharma
Director (Operations)



ऑयल इंडिया लिमिटेड

(भारत सरकार का उपक्रम)
प्लॉट न० 1ए/1, एस बी टॉवर (छटा तल),
सैक्टर-16-ए, नोएडा - 201 301, उत्तर प्रदेश

OIL INDIA LIMITED

(A Government of India Enterprise)
Plot No. 1A/1,
S B Tower, (6th Floor) Sector - 16A,
NOIDA - 201 301, U.P.
Tel. : +91-120-2488303
Fax : +91-120-2419235
E-mail : do@oilindia.in

MESSAGE

I am glad to learn that the Vigilance Department of Oil India Limited is observing "Vigilance Awareness Week - 2015" from 26th to 31st October 2015. It is my personal belief that corruption and malpractices in any industry are one of the greatest hurdles to growth. In order to ensure that we and our country are continually moving on the path of progress, it is imperative to make every effort to weed these hurdles out of the system.

To accomplish this uphill task, we all must join hands and spread awareness and offer a united stand of resistance against this evil. To this effect, observation of Vigilance Awareness Week must not be viewed as merely a CVC guideline, but rather as an opportunity for each of us to make a contribution towards more effective vigilance.

I wish the "Vigilance Awareness Week - 2015" all the success and hope that we all make efforts to leave behind a society practicing ethical behavior for our future generations.

(PK Sharma)



J.K. Borgohain
Resident Chief Executive
Oil India Limited
Duliajan- 786 602

MESSAGE

It gives me great pleasure to learn that the Vigilance Department, Oil is celebrating the Vigilance Awareness Week 2015 from 26.10.2015 to 31.10 .2015. The Corporate Culture has undergone a swift revolution in the last few years in our country. The prime focus is gradually shifting towards good governance, fairness, transparency and accountability from the earlier focus primarily on profit making. I am delighted to note that our Vigilance Department is publishing a special issue of magazine "InTouch " like previous years to commemorate this occasion. The name of the magazine itself conveys the focus area of Vigilance Department, i.e., transparency and free dialogue between all employees.

In order to achieve the goal, it is inevitable for every organization to strive hard to streamline its systems and procedures where Vigilance function plays a very vital role. Vigilance Department in OIL has contributed a great deal in evolving methodologies, systems and procedures towards smooth operations of various functions of our business. The Department with its innovative schemes like Keep in Touch (KIT) and other initiatives have brought awareness of business transaction process among all employees of the Company. Through these initiatives, new ideas have been generated, which help in getting all employees involved for improving the system.

The effort of Vigilance Department is highly appreciable. I take this opportunity to express my appreciation for the initiatives taken by the Vigilance team and convey my best wishes for success of the "Vigilance Awareness Week 2015".



(J.K. Borgohain)

Editorial



FROM THE EDITOR'S DESK

Vigilance Awareness Week reaffirms our faith and commitment to the organizational goal of higher transparency and better corporate governance. This year the week will be observed from 26th October, 2015 to 31st October, 2015 and the theme for the year has been mandated by the Central Vigilance Commission is “Preventive Vigilance as a tool of good governance”. This endorses the focus of the Commission towards preventive vigilance.

As a value driven organization, it has always been our endeavor to achieve excellence with ethics in business activities. Under the guidance of Chief Vigilance officer, vigilance department has progressively adopted several initiatives for the better governance in our business activities. These initiatives have helped in the development of improvised processes, adoption of best-practices and higher responsiveness to meet the demands of the organisation both external and internal . Since inception, it has always been a prime focused area of Vigilance Department on effective implementations and monitoring of various preventive vigilance measures. In the past , a number of changes

taking place in the sphere of Good Governance through Preventive Vigilance were witnessed by the organisation. The tool of Preventive Vigilance has been helping in the dissemination of knowledge and cut down on procedural delays.

Apart from regular quarterly issues of “InTouch”, the Vigilance Department has been publishing a special “InTouch” once every year during the “Vigilance Awareness Week”. To commemorate the observance of Vigilance Awareness Week-2015, we are putting forward the special issue of “InTouch” which includes messages from dignitaries and functionaries from Govt, CVC and our organization. We are hopeful that articles included in this issue by our in-house talents on different subjects; will be beneficial to our readers.

Let us join together to collectively achieve the objective of Vigilance Awareness Week by following the norms of excellent Corporate Governance and promoting a culture of honesty and integrity in our organization.

Please accept our greetings and felicitations for the festive season ahead.

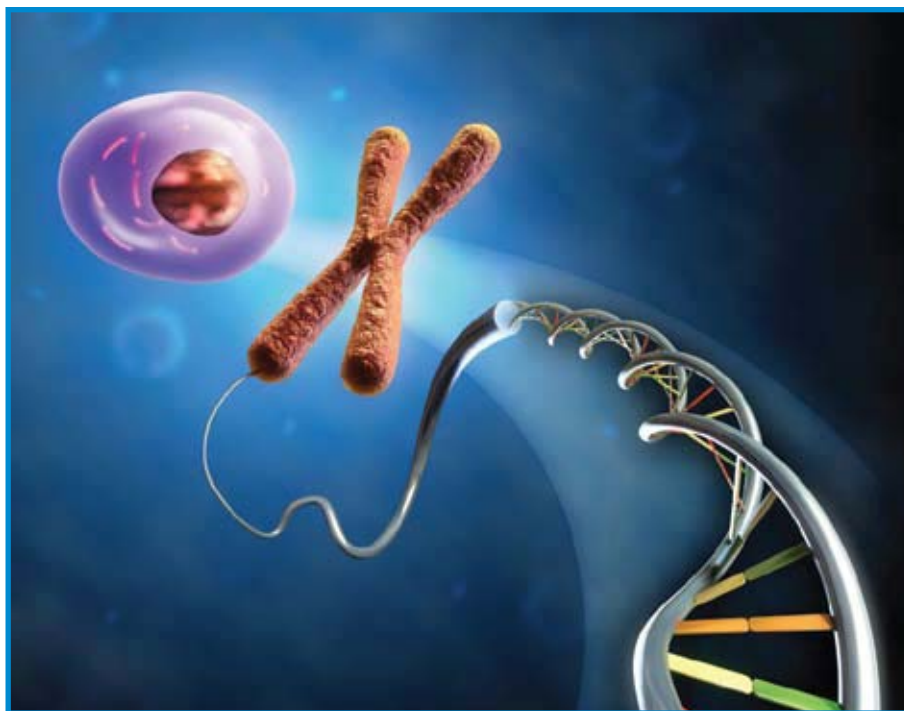
Editor : Rajumoni Saikia

Advisor : Suresh Chandra Goswami ,

Your constructive feedback is solicited at : sureshgoswami@oilindia.in
rajumoni_saikia@oilindia.in

**(Cultivation of mind should be the
ultimate aim of human existence.)
-Dr. B.R. Ambedkar**

Sudhakar Mahapatra
Director (E&D)



The Unusual Chromosome : A Case to nip in the bud

An average student of science who has read about the basic genetics of the human body is conversant with the fact that human cells have twenty-three pairs of *Chromosomes*. For a recap, of these twenty-three pairs, twenty-two pairs influence the basic traits of the individual, whereas the twenty-third pair determines whether the individual is a male or a female. It is well known that these chromosomes are the genetic link between the ancestors and the progenies and a means by which characteristics identifiable to the clan are passed on for generations. It is not unusual that sometimes human beings have an odd chromosome which causes developmental abnormalities in the individual, but this is a biological phenomenon.

It is peculiar to observe that some people in the modern society, drifting from the hereditary linkage, picks up a trait which influence them to look for personal mileage in each and every act they get involved. It is not that this trait did not exist in civilizations of yesteryears, but it has become so prominent in recent times, growing at

an alarming rate, that this has become a threat to our society. This trait is due to an unusual *chromosome*, which is recognized as *Corruption*.

Surprising is that, when we look around, we find people who have this unusual chromosome, coming from a kinfolk without any history of such act of looking for personal graffiti. Certainly then, this unusual chromosome has not been inherited from the forefathers biologically, but from elsewhere. And when we take a deep plunge, it becomes apparent that we have inherited this unusual chromosome from our surroundings - the materialistic society impounded by the scarcity of resources, in concert with the inherent greed and the vicious pleasure to be ahead of others.

Each of us will agree that, when we take a review of the memoir of few decades ago, when most of us were either youngsters or toddlers, the so called word corruption was not so much heard off. Probably then, need of people were limited to the basic *roti, kapdra aur makaan*. Those fortunate enough, accumulated



their earnings to get hold of a two-wheeler and graduated to either an *Ambassador* or a *Fiat*. Common man, although must have desired to own a motor driven conveyance, never really felt the pressure, as most people around did not possess one.

But then why did this evil took a menacing shape?

A nation is build by its own people. The impression of the country depends upon the behavior and attitude of the people. But it is a painful truth that the menace of corruption is prevalent in our country. Though, it is hard to digest, but we all have to admit that everyone is responsible for this problem, either by directly engaging in corruption or by simply turning a blind eye. This is well reflected in the opinion surveys done by Transparency International (TI), which has placed India at 85th amongst 175 countries with a score of 38 on a scale from 100 (very clean) to 0 (highly corrupt) on the basis of assessed levels of corruption by experts.

In philosophical or theological terms, corruption is the abuse of bestowed power or position to acquire a personal benefit. But, in moral terms, corruption per se is breaking the normal order for a personal gain. Breaking the queue while waiting to board a public conveyance, jumping a traffic signal and all other similar acts of an individual is a corrupt practice. Many of us might have done some or the other deed which tantamount a morally corrupt practice. Swami Vivekananda has probably rightly quoted – “*give me few men and women who are selfless and pure and I shall shake the foundation of the world*”.

Organisations have initiated numerous programmes and statutory bodies have incorporated legislations to curb corruption, but educative and punitive actions apart, in the words of His Holiness, The Dalai Lama, “*a genuine change must first come from within the individual, only then can he or she attempt to make a significant contribution to humanity*”. Thus the onus of getting rid of this *unusual chromosome* lies with every one of us if we wish to see a society free from *Corruption*.

As an individual, each one of us must be able to accept the circumstances we are in and stop looking to our surroundings and compete with them. We have to be happy with whatever we are gifted with due to our hard work and endurance. Of-course, *acceptance* does not mean that we resign to our fate and stop dreaming for prettier things in life, but we accept what life has bestowed on us and continue exhibiting the endurance we all have administered during our youth.

If we want to make our nation proud, we have to change ourselves, we have to develop a zero tolerance attitude towards corruption. The Vedas or Puranas have always taught us that a society is above family and the country is above society or religion. Indeed as an Indian, It's up to every citizen to take a stand against corruption; otherwise our society will never improve for the better. It is to be nip in the bud, otherwise it will be too late to find out that corruption has become the 47th chromosome in our DNA.

To quote the father of our nation, Mahatma Gandhi - “*Be the change you wish to see in the world*”.



**Pramod Kumar Sharma**

Director (Operations)

CORRUPTION – AN EVERYDAY PROBLEM WITH EVERYDAY SOLUTIONS

Corruption is like corrosion. One needs to have proper proactive measures and cleanliness in mind and business to tackle corruption. Corruption in the Indian society has prevailed from time immemorial in one form or the other. With the advent of the modern age, corruption has not gone away, but just morphed into new forms. Since 2005, India has been ranking around the middle (90 out of 180) of Transparency International's league table of country perception of corruption by the people (including investors, businessmen, etc). Earlier, the perception was that bribes were paid for getting things done. But now, many people accept it as a way of life in our country. Apart from its spread and many faces, it also severely affects our nation's economy like a malignant disease. Not only does corruption in India worsen poverty, it also drags the whole country's development down by stealing its resources. A rule of thumb confirmed by many studies is that "the more the corruption, the slower the economic growth".

But the bigger question is, what is the root cause of corruption? The answer to this question is often

excessive regulations, complicated taxes and licensing systems, numerous government departments each with opaque bureaucracy and discretionary powers, monopoly by government controlled institutions on certain goods and services delivery, and the lack of transparent laws and processes. At the scale of India (or China which has the same issue) these massive numbers of intermediaries just while the country is undergoing tremendous changes make the problem worse. The State has put in a number of measures to combat this evil. The Central Vigilance Commission (CVC) was created in 1964 and put in charge of implementing mainly the Prevention of Corruption Act. Although over the years the powers and mandate of the Commission have been increased to make it more effective, its focus should be both regulatory as well as facilitatory. Now, a lot of power has been vested in the Lokayukta through the Lokpal act. Despite of all these reactive measures, the evil still prevails.

I personally feel that there is good in each and every person, and people resort to unfair means only because



they are compelled by some circumstances and by not knowing the rules and regulations. In our country, the great economic disparity between the rich and the poor is staggering, and some people often resort to corrupt practices just to make ends meet. The way to root out corruption is two-fold: first, to reduce the economic disparity between the rich and the poor, and, on an organizational level, make every person proud of his position and reward and appreciate them for their good work.

The other weapon against corruption is to reform our system and by promoting more openness and transparency. The Right to Information (RTI) act has been a major step forward in this direction. We must also attempt to simplify rules and procedures, as it is in the complexities that people often find loopholes to exploit. In many ways, having a more simple and straightforward bureaucracy – which is incredibly easier today with digital technology – is one of the most effective ways to fight corruption in India. Further, having a widely trained public workforce in the country would help to increase oversight and scrutiny from within the administration. Perhaps, most important of

all, a strong government at the top will be able to come down upon corruption with a firm hand, and set the trend for the rest to follow. It is heartening to note that our country is progressing well in all these steps, and within a few years corruption indexes would start to come down.

The most potent weapon against corruption, however, are common people like you and I. Each one of us must set precedents by offering zero tolerance for corrupt practices. Herein comes the indispensability of being vigilant. If we ignore an instance of this evil, we automatically become a party to it, and end up encouraging it, which is just the opposite of what we need to do. Ultimately, it must be understood that all the malpractices, double-dealings, nepotisms and other such practices, be it governmental or organizational, have a cultural root, and in order to tackle it, we all must join hands and pledge to root it out of the system. I am confident that, with unity amongst our ranks, vigilance in our eyes, and morals in our souls, we will be able to root out this evil from our country, our society, and our minds. Jai Hind.

Seven Deadly Sins

- Wealth without work
- Pleasure without conscience
- Knowledge without character
- Business without morality
- Science without humanity
- Worship without sacrifice
- Politics without principle

- Mahatama Gandhi



S R Krishnan
E D (Company Secretary)

KNOWLEDGE MANAGEMENT AND BOARDROOM

How a company manages its corporate know-how and the knowledge of its people can have a significant impact upon growth and development. When knowledge management is discussed in the boardroom what are the key questions that a director should ask? Should directors challenge contemporary approaches? If knowledge management is not on the boardroom agenda should it be?

A five-year investigation led by a Research Institute suggests that boards should be concerned. Many knowledge management initiatives have been excessively general and overly complex, and they have not delivered hoped for benefits. Encouragingly, a more affordable route to better results has been identified, but a change of emphasis is required. A board needs to ensure that a company's management is embracing what is required rather than defending past practices.

This article presents some key findings from the investigation's report Transforming Knowledge Management which sets out a more focused, flexible and affordable approach that can quickly impact upon performance, deliver multiple objectives and

provide clear benefits for companies and corporate stakeholders. The report suggests a new approach to corporate leadership which puts more emphasis upon ensuring that people are engaged and provided with better support.

CHANGING THE FOCUS OF KNOWLEDGE MANAGEMENT

How affordable and flexible are the approaches which have been adopted? Directors should question the cost-effectiveness of knowledge management initiatives. More effort has often been devoted to implementing them than measuring their impacts. Data, information and knowledge collected are not always relevant or accessible as and when required. Some approaches also require 'culture change', while requirements and priorities can change during implementation.

'Traditional' approaches can require significant upfront investment in capturing and storing information and knowledge covering a wide range of activities. Much of what is assembled is often 'commodity knowledge' available to competitors. It does not differentiate or represent a source of competitive advantage. It



might not be relevant to new priorities, challenges or opportunities. Past initiatives have often been expensive, time consuming and disruptive. Better and faster results may need to be achieved with limited budgets and with existing people, structures and cultures.

Does the focus of knowledge management in your company need to change? Many organisations are also capturing and sharing the wrong sort of knowledge. Knowledge of how best to undertake particular tasks and confront specific issues can be more important than general understanding, especially so in relation to key jobs that deliver key objectives sought by the board.

A switch of emphasis is required from 'knowledge about things' to 'knowing how to do things', and from the storage of knowledge to its access and use. Directors should question whether the knowledge management team is serving the needs of C-suite executives or helping front-line work-groups to excel. The management team may need to switch its attention from 'top-down' motivation and management to 'bottom-up' support and key work-group performance.

UNDERPINNING RESEARCH & EXPERIENCE

The underpinning research has identified critical success factors for important activities such as winning business. Twenty studies found a clear distinction between how 'winners' (top quartile performers when those examined were ranked in order of results achieved) and bottom quartile 'losers' tackle key jobs. Once determined, critical success factors and winning ways can be explained and/or built into work processes and various forms of performance support.

Has sufficient effort been devoted to capturing and sharing knowledge of how to excel at key tasks?

The evidence suggests there is considerable potential to boost the performance of even the work-groups in the top quartile of attainment. For example, in relation to winning competitive bids, those in the top quartile of achievement were only very effective at less than a half of the identified critical success factors. The performance of every organization examined could be improved.

Knowledge-based performance support - whether simple paper checklist, mobile phone application or multi-media tool - can enable average performers to emulate 'superstars', and that this can be done by working with the groups and teams one has, i.e. without

needing to replace people, or change attitudes, cultures or values. A board needs to ensure that management provides the people of an organisation with the tools to do what is expected of them. Performance tools can address identified issues, help people to do difficult jobs and boost the achievements of average performers.

KNOWLEDGE MANAGEMENT AND PERFORMANCE

Knowledge-based performance support addresses deficiencies of 'traditional' knowledge management and delivers additional benefits. It is relatively easy to adopt and its implementation does not require a change of systems or structure. Its focus can be upon key work-groups, it can embrace channel and supply chain partners, and it represents an affordable route to a high performance organisation. It can also be personalised and adapt to changing requirements.

Performance support can build confidence and understanding, and may be easy to disseminate to business partners in multiple locations. Directors should ensure that the support provided to people for whom they are responsible is current and relevant. This can be ensured by appropriate social networking and automatic updating when users are on-line. People can be helped to cope with change. Building checks into tools can help to ensure quality and compliance.

In comparison with costly and protracted alternatives, performance support can be quickly adopted to address particular problems. It can be provided in ways that best meet the needs of those to be helped, and can evolve as requirements change, new issues emerge, and additional funding becomes available. Applications can support mobile activities and new ways of working and learning, delivering commercial success for organizations and personal satisfaction for individuals.

A board could encourage the more strategic use of performance support. The unit costs of providing help fall with larger communities of users. Once set up, the cost of downloading, duplicating or otherwise sharing a support tool can be minimal. A social networking facility can encourage knowledge sharing. Automatic updates can help to keep support current.

RESPONSIBILITY FOR KNOWLEDGE-BASED SUPPORT

Directors and the CEO should think carefully before allocating knowledge management responsibilities. Past initiatives have often been implemented by IT professionals and led by the chief technology officer. If

a board feels there needs to be more focus on particular jobs that contribute to priority corporate objectives then others may need to be put into the driving seat.

While implementation may be delegated to management, a board should ensure its priorities are observed. Adoption involves assessing important roles and tasks; identifying steps in work processes that have the greatest impacts; and ensuring that people in these 'key' and demanding jobs are enabled to excel by providing them with appropriate performance support that captures and shares critical success factors and what high performers do differently, and helps them to succeed.

Directors should question whether new challenges could be handled by existing people if they were better supported. Hiring people and/or using external consultants to support innovation or new offerings can be expensive, especially where developments occur on a regular basis. Dipping into the external market as a fresh requirement arises can be costly. It may also not be practical if a company wishes to launch a new offering at the same moment in time across a global market place.

SUPPORTING BUSINESS DEVELOPMENT AND NEW INITIATIVES

A company may not necessarily need expensive new hires in order to expand. Knowledge-based support can be much more cost effective than options such as external recruitment. It can enable existing people to understand, sell and support a new product or service and help customers to responsibly innovate and buy. Prospects can assess new options that better meet their needs. They can feel in control and may order more than when sales staffs are present.

Some boards champion innovation. Performance support is particularly suited to launching new products and initiatives. Details and animations and images showing new offerings in use can be quickly communicated around the world. Automating routine tasks frees up time for differentiation and tailoring that may justify a price premium, or for addressing implementation issues.

Knowledge-based performance support can provide a solid base for future sales, service and corporate communications. In addition to speeding up adoption and cutting costs, it can reduce commercial, regulatory and quality risks. The ability to present information in

different formats can enhance understanding and the assimilation and application of new knowledge.

REDUCING RISK & ENABLING COMPLIANCE

Ensuring compliance is a concern of many boards. Knowledge workers and professionals often operate in areas that are intrinsically risky and where non-compliance with relevant policies, laws, regulations, rules and guidelines can have serious consequences. Performance support can help people to identify, assess and address risks, and take consistent, fair and compliant decisions. It can build trust, competence and confidence.

Risk-aversion can be counterproductive. It can increase the chance of more effective options and approaches being overlooked. A desire to avoid risk may actually result in missed opportunities to achieve significant savings and deliver substantial increases in productivity and performance. The right knowledge-based support can liberate, facilitate innovation and enable responsible risk taking.

Performance support can help to ensure compliance and achieve a direct impact upon 'front line' behaviour and measurable outputs. When unfamiliar situations arise and re-skilling is required, performance improvements are therefore easier to measure than is the case with 'traditional' approaches in areas where costs - for example of training - are easier to determine than the benefits.

24/7 LEARNING SUPPORT OF KNOWLEDGE WORKERS

A balance has to be struck between performance today and future potential, and between support of a selected few and 'helping the many'. Many companies try to equip perceived high fliers for future roles. Knowledge-based performance support can help people to both excel today and tackle whatever might be encountered tomorrow. It can complement or replace 'traditional' approaches to mentoring and training, and provide assistance to scattered communities, as and when required.

Personal coaching and/or mentoring larger numbers of people can be a challenge. Performance support can overcome scalability barriers and cost-effectively provide good practice, and up to date and personalised help to people throughout an organisation, and internationally, on a 24/7 basis. Those supported can learn from each use, enabling them to remain current.



Are people in different locations and when out of the office and on the move receiving adequate assistance? Performance support is a form of 24/7 and on-demand mentoring. It can take help that is provided to a few and make it available to large numbers of people, wherever they might be, and whenever assistance is required. Individual users can benefit from the advice of not just one person, but many - if not a galaxy - of superstars, each of whom may excel in particular areas.

Knowledge-based performance support is especially relevant to the problems confronting many public services. With staff costs representing a high proportion of total expenditure and the time it takes to train new professionals, performance support can make the best of available resources and deliver multiple outcomes in a practical and cost-effective way. People usually see better support as helpful and implementation can be manageable, affordable and achievable.

COMMUNICATING AND BUILDING RELATIONSHIPS

Are mutually beneficial relationships being forged with key stakeholder groups? Performance support can have a significant and beneficial impact on corporate communications and engagement. 24/7 support can be provided when and wherever required. Delivery can be via a laptop, palmtop, mobile phone, or via the internet, and integrated with web communications and social networking.

Customers are often unaware of the impacts of their buying decisions upon themselves, others and the environment. Sales and purchasing support tools can show buyers the implications of different courses of action, and enable them to select the option which has the least harmful effect. They can increase the performance of key work-groups such as front-line sales teams, account managers, service and customer support staff, and make it easier for people to take difficult buying decisions.

Many people and boards would like to address challenges such as sustainability and climate change, but they lack a practical way of doing so. Performance support represents a flexible and cost-effective way of demonstrating corporate social responsibility and quickly impacting upon behaviour. In doing what they feel is the right thing people can benefit themselves, their supplier and the planet. Corporate performance, and employee and customer satisfaction can all gain.

'NEW LEADERSHIP'

'Top-down' and 'all encompassing' central initiatives

can be expensive and time consuming. They can result in more complex and inflexible solutions that take much longer to have an impact upon performance than 'bottom-up' applications of performance support to address particular problems and burning issues. Knowledge-based tools can impact relatively quickly upon key corporate objectives and can be used to both increase performance and generate additional external income.

Boards should favour approaches that deliver multiple objectives. Traditional 'top-down' leadership practices in many companies are not delivering the advantages which a change of emphasis and focus could bring. 'New leadership' and a 'bottom-up' approach to creating high performance organisations and achieving simultaneous progress on several fronts are required.

Knowledge-based performance support, whether simple checklists or more complex tools, offers financial, scalability, flexibility and sustainability advantages over 'traditional' options. Relevant and current support can be provided wherever help is needed, at a place of work, out of the office, or on the move. Users can benefit from the advice of whoever has the most relevant and effective way of addressing problems that arise at each stage of a complex task.

CONCLUSIONS

Contemporary approaches should be challenged. A board should be vigilant when proposals for new knowledge, talent or change management programmes are received. An initiative that does not offer a quick payback, multiple benefits and a high ROI, or whose results are difficult to measure, should be questioned. It may not be focused, use contemporary tools, or be justified.

Directors should question whether the approaches of high performers have been captured in a form that enables them to be accessed by others whenever and wherever required, and shared, utilized and developed. They should ensure that people and teams delivering key corporate objectives are engaged and appropriately supported.

Performance-focused knowledge support could improve the implementation of board policies, ensure compliance, reduce risk, boost productivity, avoid trade-offs and more quickly deliver multiple objectives. It could also enable corporate leaders to set people free to innovate and bespoke responses to the changing requirements of customers and other stakeholders.

**Dr. Santanu Baishya**

M.B.B.S, D.I.H, D.I.H (I.H), NEBOSH Certificate in Occupational Health & Safety (UK).

Chief Medical Officer (Occupational Health)

OBESITY

Worldwide obesity has more than doubled since 1980. More than one in ten of the world's adult population are obese. In 2008, 1.4 billion adults, 20 and older, were overweight. Of these, over 200 million were men and nearly 300 million women were obese. 65% of the world's population live in countries where overweight and obesity kills more people than underweight. Once considered a high-income country problem, overweight and obesity are now on the rise in low- and middle-income countries, particularly in urban settings. More than 40 million children under the age of five were overweight in 2010.

An exercise was carried out between 1st April 2009 and 31st March 2012 to Study the Prevalence of Overweight and Obesity among employees of our company at Fields Headquarter Duliajan. During the course of this study by the Occupational Health Centre, BMI of 2198 employees who came for PME was recorded and analysed. It was found that the prevalence of overweight among employees was 39.44% and obesity was 8.53%.

Overweight and obesity are defined as abnormal or excessive fat accumulation that may impair health. Body mass index (BMI) is a simple index of weight-for-height that is commonly used to classify overweight

and obesity in adults. It is defined as a person's weight in kilograms divided by the square of his height in meters (kg/m²).

$BMI = \text{weight (Kg)} / \text{Height (m)}^2$

The WHO definition is: a BMI greater than or equal to 25 is overweight and a BMI greater than or equal to 30 is obesity. The normal BMI for a person should be less than 25.

Interpretation of BMI

BMI	Weight
< 25	Ideal weight
25 - 30	Over weight
30 - 40	Obese
>40	Morbid obesity

A more simple way to calculate healthy weight is the Broca's Index.

Broca's Index

Height in cm – 100 = Weight in Kg.

Example: 172 cm – 100 = 72 Kg

The more ideal body weight will be 10% less than the above calculated



Human ingenuity has made life easier for us but it has also created a toxic environment. It would be interesting to note that obesity is unknown in animals in the wild, but rapidly develops in the same animals in captivity. Obesity is a man made medical problem. Most of the factors responsible are modifiable and therefore preventable. These includes –

Diet: Overeating, regular consumption of high-calorie food, such as fast food, contributes to weight gain.

Food Access: Easy access to inexpensive nutrient rich food, home delivery of meals, fast food outlets in properties, TV advertisement of unhealthy food products lead to overconsumption of the wrong variety of food.

Calorie Intake: There should be a balance between calories consumed as food and calories burnt. If the daily energy intake from food is the same as the calories the body need each day, weight will stay the same. However, if the daily energy intake from food is more than the calories body need each day, weight will increase. This is because the body will store the extra energy as fat

Optimal Intake of Food Calorie

For each kilogram of weight, the calorie requirement is 30 kcal/day.

If the weight is 80 Kg, the calorie requirement is: $80 \times 30 = 2,400$ kcal/day.

If the Ideal Body Weight is 70 Kg, a person needs to reduce 10 Kg, i.e. $10 \times 30 = 300$ kcal/day.

So, the calorie intake of food per day should be $2,400 - 300 = 2,100$ kcal/day

Inactivity: Sedentary people are more likely to gain weight because they do not burn calories through physical activities. Poor urban planning and infrastructure with ever increasing safety concern which restrict access to walking, playground and outdoor pursuit restrict physical activity. Change of playing habits from outdoor to indoor video games has also reduced activity level among children.

Psychological factors: Stress can trigger excessive eating. Some people overeat to cope with emotional problems such as stress or boredom.

Age: With age, a person tends to be less active. In addition, the amount of muscle in the body also tends to decrease with age. The lower muscle mass leads to a decrease in metabolism. These changes reduce calorie needs. So if there is no decrease in the caloric intake, weight gain is likely to take place.

Genetics: This is a non-modifiable factor. If one or both of parents are obese, chances of being overweight are greater. Genes may affect the amount of body fat a person stores and where that fat is distributed.

Smoking: Nicotine increases the metabolic rate and so smokers tend to gain weight after quitting. Smoking also affects taste; quitting smoking makes food taste and smell better. So one has the tendency to take more food.

Alcohol: Drinking alcohol add calories to the diet — just one regular beer is about 150 calories. Additionally, excessive drinking can stimulate appetite and can make one less likely to control portion sizes.

Medical problem: Uncommonly, obesity can be traced to a medical cause, such as low thyroid function, excessive production of hormones by the adrenal glands (Cushing's Syndrome) or other hormonal imbalances, such as polycystic ovary syndrome. A medical problem, such as arthritis, can also lead to decreased activity, which can result in weight gain.

Pregnancy: During pregnancy a woman's weight necessarily increases.

Medications: Certain medicines such as corticosteroids and tri-cyclic antidepressants, in particular, can lead to weight gain.

Overweight and obesity are the fifth leading risk for global deaths. At least 2.8 million adults die each year as a result of being overweight or obese. In addition, 44% of the diabetes burden, 23% of the ischemic heart disease burden and between 7% and 41% of certain cancer burdens are attributable to overweight and obesity. Obesity assumes importance as it is a risk factor for a host of diseases like –

High blood pressure: As one put on weight, they gain mostly fatty tissue. Just like other parts of the body, this tissue relies on oxygen and nutrients in the blood to survive. As demand for oxygen and nutrients increase, the amount of blood circulating through the body also increases. More blood travelling through arteries

mean, added pressure on the artery walls. Weight gain also typically increases the level of insulin. This leads to retention of sodium and water, which increases blood volume. In addition, excess weight often is associated with an increase in the heart rate and a reduction in the capacity of the blood vessels to transport blood. All of these factors can increase blood pressure

Diabetes: Obesity is a leading cause of type 2 diabetes. Excessive fat makes the body resistant to insulin. Ectopic fat in pancreas and other internal organs play an important role in the pathogenesis of obesity.

Abnormal blood fats: A diet high in saturated fats — red meat and fried food, for example — can lead to obesity as well as elevated levels of low-density lipoprotein ("bad") cholesterol. Obesity is also associated with low levels of high-density lipoprotein ("good") and high levels of triglycerides.

Coronary artery disease: It results from the built-up of fatty deposits in arteries that supply blood to the heart. Over a period of time these deposits can narrow heart's arteries, as a result of which less blood flow to the heart. Diminished blood flow to the heart can cause chest pain. Complete blockage can lead to a heart attack.

Stroke: Obesity is associated with atherosclerosis in the arteries. If a blood clot forms in a narrowed artery in the brain, it can block blood flow to an area of the brain. The result is a stroke.

Osteoarthritis: Excess weight puts extra pressure on the joints and wears away the cartilage that protects them, resulting in distressing joint pain and stiffness.

Sleep apnea: This serious condition causes a person to stop breathing for short periods during sleep and to snore heavily. The upper airway is blocked during sleep, which results in frequent awakening at night and subsequent drowsiness during the day. Most people with sleep apnea are overweight, which contributes to a large neck and narrowed airways.

Cancer: In women, these include cancers of the breast, uterus, cervix, ovaries and gallbladder. Overweight men have a particularly higher risk of cancers of the colon, rectum and the prostate.

Fatty liver disease: In an obese person, fats can build up in the liver. This fatty accumulation can lead to inflammation and scarring of the liver. Such scarring

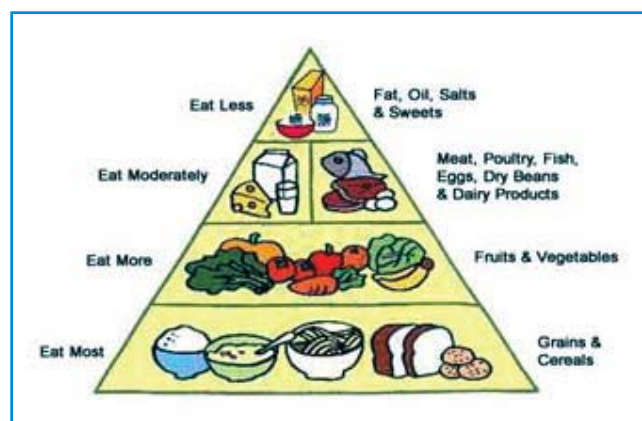
can cause cirrhosis of the liver, even if the person is not a heavy alcohol drinker.

Gallbladder disease: Overweight people may produce more cholesterol, which can be deposited in the gallbladder and therefore the risk of gallstones are higher in obese people. Fast weight loss — more than 3 pounds a week — also can increase the risk of gallstones.

The weight gain is slow and gradual. In the initial period, very few people comprehend to the risk associated with overweight and obesity, and therefore tend to ignore the issue till it heralds a health problem. Obesity is still considered as a sign of affluence and good health, and is culturally acceptable in many societies.

Spontaneous weight loss is rare. The cornerstone for the prevention of overweight and obesity lies in identifying the modifiable factors in our daily life and initiating self motivating actions to correct those. Some of the actions that can be initiated for weight loss are—

Consuming fewer calories: This is an important factor for successful weight loss. To lose weight and keep it off, moderate amounts of nutrient-rich, low-fat, low-calorie foods which include a lot of fresh fruits and vegetables should be taken. Healthy food include vegetables, fruits, grains and lean sources of protein, including beans, fish, low-fat dairy products and lean meats. High-fiber carbohydrates are a good source rather than table sugar and other sweeteners. Cut back on sweets. Because fat has more than twice the calories of carbohydrate and protein, reducing the fat content of your diet is an important way to cut calories. Watch portion sizes.



FOOD PYRAMID



Common Food and their Calories

Type of food	Quantity	Calories
Chapati	One number	100
Nan	One number	190
Plain rice	One cup	100
Vegetable pulao	One cup	200
Boiled egg	One number	80
Omelet	One number	245
Mutton /chicken curry	One cup	250
Mutton biryani	One cup	250
Chips	Ten pieces	150
Samosa	Two numbers	500
Pav bhaji	One serving	500
Malai kofta	Two kofta	320
Idli	Two numbers	80
Rasogolla	Two numbers	280
Gulab jamun	Two numbers	350
Ice cream	One cup	154

Physical activity: All young people should participate in physical activities of moderate intensity for about 45 minutes every day. Moderate physical activities includes walking, cycling, swimming, dancing and most sports. These activities should be age appropriate and be built up gradually over a period of time. Activities could be accumulated intermittently throughout the day. The chosen activity should be such that it can be maintained throughout the adult life. Behavioural modification like taking the stairs instead of the elevator, parking in the farthest spot in the parking lot, walking to the kinara

market, playing with children instead of watching them play can increase the overall accumulation of physical activity during the day.

Physical Activity Chart

Exercise						
Types of Physical Activities	Calories burnt in 30 minutes for a given body weight					
Activities	50 Kg	60 Kg	70 Kg	80 Kg	90 Kg	100 Kg
Bicycling	264	317	370	422	475	528
Running	264	317	370	422	475	528
Swimming	186	222	259	296	333	370
Normal walking	106	127	148	169	190	211
Brisk walking	132	158	185	211	238	264
Basket ball	211	253	296	338	380	422
Volley ball	79	95	111	127	143	158
Tennis	186	222	259	296	333	370

Overweight is the precursor of obesity and a risk factor for a number of diseases. It is therefore always preferable to prevent the development of obesity by appropriate lifestyle modification starting early in childhood. Dietary discretion and physical activity is the pivot of lifestyle modification and should be inculcated as a part of the family culture. Efforts to lose weight are very slow and frustrating. The individual requires a high degree of motivation to sustain his effort and should have a do not give up attitude.

“As the saying goes...

"Rome was not built in a day.... "Similarly small steps we take to curb corruption may not give us the immediate result but as"

..... Small drops make an ocean...." So winds of change will surly blow and one day our society, our country will be free of corruption and we all will sing joyously:

**SAARE JAHAN SE ACHCHA
HINDUSTAN HUMARA...**





Ashish Bahukhandi
GM - Vigilance (FHQ)

PREVENTIVE VIGILANCE & BIG DATA

Vigilance, importance of which was looked down more upon by all, honest and dishonest people alike. The former, being honest to the core, do not consider it to be so important, while the latter obviously hide their hidden discomfort with openly disregarding its importance. "Eternal Vigilance is the price of Eternal Development", said a great someone somewhere. And truly so, for a business to flourish today, what other term could possibly be more important if not vigilance?

But what exactly is Vigilance, especially when it comes to management and businesses worldwide? Literally, it is simple watchfulness – and by definition, watchfulness could not be more useless if only done in the retrospection. That brings us to the most trending term in the vigilance parlance today, preventive vigilance. One is not wrong if he says watchfulness should always be preventive. This watchfulness can be combined with best practices, simple & uncomplicated systems etc. to give it a better edge. Historical data and statistics may also prove to be quite helpful in analyzing and simplifying systems and procedures.

The recent analytical reports of emerging trends in business, that define what 2020 will in most probability

look like, have uncovered one industry-agnostic big ticket item: the power of data. Data and the capability of organizations to use that data, the experts say, will ultimately determine who fails and who flourishes in the hyper competitive marketplace that has started to unfold. But what makes data the ultimate competitive edge? Again, the experts say, we can use data to glean insights about consumer behavior and use it to make decision support systems that rely more on evidence than merely gut.

An industry that has already started leveraging the power of big data is the banking and finance sector. It has been almost a decade that they started using it to detect fraud, and used that information to profile and predict possible defaulters. This information proved to be of such help that today, rather than being an expensive solution adopted by only the elite, it has become the norm for most players. Lately, with the surge of big data producing behemoths, the services and IT industries, the Indian Big Data industry is looking to boom. A joint study by NASSCOM and CRISIL Global Research & Analytics estimates that the Indian big data industry will grow from USD 200 million in 2012 to \$1



billion in 2015, at a CAGR in excess of 83 percent. This points towards the fact that more and more businesses will pick up big data to help differentiate themselves from their competition. The functions predicted to gain the most out of this megatrend are marketing & branding, production and consumer service.

What is Big data : Big data is a buzzword, or catch-phrase, used to describe a massive volume of both structured and unstructured data that is so large it is difficult to process using traditional database and software techniques. In most enterprise scenarios the volume of data is too big or it moves too fast or it exceeds current processing capacity. Despite these problems, big data has the potential to help companies improve operations and make faster, more intelligent decisions. The term often refers simply to the use of predictive analytics or other certain advanced methods to extract value from data, and seldom to a particular size of data set. Accuracy in big data may lead to more confident decision making. And better decisions can mean greater operational efficiency, cost reduction and reduced risk. Analysis of data sets can find new correlations, to "spot business trends, prevent diseases, combat crime and so on. [source – Wikipedia & Webopedia.com]

The application of the big data phenomenon is tremendous in vigilance as well. Be it to see if the purchase has been made at the best cost possible keeping in mind the critical-to-quality measures, review of sales, quality and transport, or even the more sensitive areas like scouring personnel information to find possible deterrents to benefit of the organization, big data can help us uncover trends that may lead to sub-optimal situations in the future. These trends and patterns hold the key to unveiling important insights into why unsavory conditions arise in the first place, and how exactly can we prevent them from happening in the future.

Although big data and technology sound like godsend when looked at from the organizational benefit lens, one cannot simply ignore the red flags data supported decision systems have raised in the past. For example, Target, a retail giant in the USA, used pattern recognition and data-backed profiling to send customized offers on its goods to its customers, given the past buying behavior. It essentially predicted what goods a customer is most likely to buy given her past buys from the store, based on what trends have been

seen in demographically similar individuals. In one of its endeavors to ensure great customer experience, Target sent an offer coupon to a lady on care items for expectant mothers. The reason this incident became household information is because the lady in question was an unmarried 16 year old. Her father, furious, told off the staff at the store in good measure, only to discover that his still-a-minor daughter was indeed, in fact, pregnant. This marked the start of the great debate over the thin line between using big data well and invading people's privacies. Since vigilance is already a topic that sends shivers down the spines of even the most tactful, usage of big data to ensure true preventive vigilance, even if in the name of benefit of the organization, can be a feat tricky to pull off. But one thing is clear, big data is here to stay and businesses will be foolish not to take advantage of it in all ways and means possible.

As a member of the Vigilance team myself, I ask myself the question many-a-times: what are we willing to forgo in the name of constant vigilance? "Eternal vigilance is the price of liberty" has been a constant saying among the philosophers and policymakers since times immemorial. And there is a good reason for that. Freedom without responsibility is a loose canon, dangerous and unpredictable. With stories like Enron and Volkswagen debacles circulating around, the trust that public had in organizations has come down to a new low. Only proactive and preventive vigilance can send the message back to masses that organizations are looking to do their businesses in a more ethical and professional manner, which is the only thing that will eventually win back their trust. In such a scenario, does it become okay for organizations to use big data to predict unsavory situations and hence give the organization and the leadership enough time to counteract it? Or does using big data to predict and stop possible misfortunate events from happening somehow counter our core philosophy of "innocent till proven guilty"? Big data, or no big data, we are sure that preventive vigilance is very much essential to bring system improvement which eradicates the possibility of corruption and becomes management tool for good governance. Exploring to use big data in carrying out preventive vigilance may become a trustworthy tool in the future for many organizations.



Dr. V M Bareja
Sr. Manager (OIL)

M-GOVERNANCE WILL REDUCE RAMPANT CORRUPTION

We have experienced in past and there is not an iota of doubt in our minds that Information and Communications Technology has to play a big role in fight against rampant corruption in India. The flow of information between government institutions, between government and citizens is required to be maintained. New technologies can promote transparency, accountability and civic participation. By practicing Mobile-Governance; technology can trigger positive changes; reduce the asymmetries of information between public officials and citizens; lemmatize the discretion of public officials; automatize processes, cut down intermediaries, reduce red tape and bureaucracy.

Keeping technology ahead and to make India a Digital India, very soon "E-Governance is going to change into M-Governance," means Mobile Governance. Digital India will be vast in scale and ambitious in its aims. It will definitely help to reduce corruption in government services by making most of that available online. Here are few things we need to know about it:

1. **Broadband Highways:** At present India is suffering from digital divide - meaning there are millions of people who do not have access to broadband. Broadband highways will be routes through which internet connectivity will reach 2,50,000 gram panchayats by December 2016.
2. **Digital Locker:** This online locker will be able to store all documents issued to you by the government and will require an Aadhar card as identification for the first time. After that you will be able to set your own password and even link it with a Google or Facebook account. Services such as passport applications might become fully online when the relevant authorities are able to access your verified documents online. You won't be required to go to a government office with a folder full of documents. The business of middlemen will become defunct.
3. **Mobile connectivity:** Over 42,000 villages will have seamless mobile connectivity by 2018.
4. **E-Kranti:** This is perhaps the biggest program



within Digital India and focuses on a mobile-first approach. That means integrating public programs on single portals and using technology for their implementation and for public grievance system when they don't work well. The government will also fast track approvals using IT and mandate standards and protocols for software and hardware. A National Cyber Security Co-ordination Centre will be set up to combat cyber attacks, which have the potential to disrupt large parts of Digital India. Major IT companies are expected to work on projects to make this possible.

5. Jobs: Business Process Outsourcing (BPO) centres will be set up in states that have lagged in development, such as the North-Eastern states and rural areas. One crore students will be trained in smaller towns and cities in five years, to develop

a skilled workforce for such BPOs and the IT sector. Telecom service providers have agreed to train 5 lakh people in smaller towns to work in their projects.

6. Manufacturing: Digital India seeks to spur electronics manufacturing to the extent that there would be net zero imports — that is exports will equal imports — by 2020.
7. MyGov: Ideas from the public for design of programs such as better traffic management, using big data for making cities smarter and even for the PMO's mobile app among many others. The idea is to start new programs in consultation with informed citizens for better implementation

(Source: Internet)



**L. K. Saikia**

Head-Vigilance (FHQ) &
S.K. Roy, Chief Manager-Vigilance

PREVENTIVE VIGILANCE AND ITS IMPACT ON CURBING CORRUPTION AND ACHIEVING GOOD GOVERNANCE IN OIL.

The theme of this year's Vigilance Awareness Week is "Preventive Vigilance as a tool of Good Governance". It probably gives us an indication that amongst the three basic types of Vigilance (i.e. Preventive Vigilance, Reactive Vigilance and Surveillance & Detective Vigilance), the Preventive Vigilance could be practiced more to promote vigilance vis-a-vis good governance.

Vigilance is an integral part of the management. It provides important mechanism for improving performance of an organization. It also assists in systemic improvements in curbing the avenues for corruption. Vigilance thus helps in improving efficiency and effectiveness of the personnel as well as the organization.

In India, Public Sector Undertakings play a significant role in the economic as well as social development of the country. They deal with tax payers' money and are therefore accountable to public. Unlike the private sectors organization where individuals count more, in

the PSUs the systems have to work more efficiently than individuals. Under such circumstances, there is a need for a strong vigilance organization in the PSUs. Vigilance is therefore considered as one of the essential components of management. It is not the purpose of vigilance to wait for lapses to be committed and then try to conduct post mortem. In other words, preventive vigilance may be considered more important than punitive vigilance. Many vigilance cases can be avoided if adequate attention is given towards preventive vigilance.

People always have wrong conception and approach towards vigilance as they perceive vigilance as enquiry, fixing responsibility etc. Vigilance is not only investigation but it is mainly prevention. To punish and not to prevent is like pumping the water through a pump without arresting the leakages which result in wastage of water, energy and time.

From the organisation point of view, preventive vigilance is nothing but



adoption of a package of measures to improve systems and procedures to reduce /eliminate corruption. Preventive Vigilance is comparatively more important as these are likely to reduce the number of vigilance cases considerably. Preventive measure/vigilance calls for constant review of rules, procedures and practices etc. which can meet the scope for eliminating corruption.

In Oil India also more emphasis is given on Preventive Vigilance for combating corruption as well as to have good (organisational) governance. Therefore, to bring awareness, educate and sensitize our population on vigilance & allied matters, various awareness and training programmes are arranged periodically all throughout the year. Some of the preventive measures implemented/adopted by the Company to eradicate corruption/malpractices are briefly described below.

(a) Preventive vigilance through awareness programme:

Awareness is the basic requirement to contain corruption in an organization. Awareness for vigilance helps us in many ways – Firstly, it disciplines the public servants in functioning day-to-day activities by increasing affinity for rules and regulations of the organization. Secondly, it helps to grow our spirit to tame corrupt officials. Thirdly, it helps to check unscrupulous drain out of fund. It also helps in improving systems, procedures & practices. A brief description on various awareness programmes organised by OIL all throughout the year is given below:

- **Keep in Touch (KIT) & Catch them young (CTY):**
As a part of preventive vigilance, Vigilance Department in collaboration with Learning & Development Department organises various educative training for the benefit of the employees of the company.

Through KIT, all the Executives including the Executive Trainees are targeted to impart basics about Purchase and Contract manuals, CDA Rules & Vigilance matters. It has been observed from various investigations, inspections & system studies that in many cases our executives commit mistakes due to lack of adequate knowledge on DOP (Delegation of Powers), CDA (Conduct, Discipline & Appeal)

rules, Purchase of goods & services as per manual and also procedural lapses, but not having malafide intention behind their act. So, it is desirable that they are well equipped with knowledge pertaining to their domain to discharge their duties efficiently & fearlessly.

The KIT programme was introduced in the year 2010 and so far 34 programs have been completed including 2 programs each in Kakinada (KG Basin), Calcutta Branch, Jodhpur (RP) and 1 each in PHQ (Guwahati), Moran & Jorhat covering 836 executives.

- **Catch Them Young (CTY)** programme is aimed for newly joined executive trainees and executives to impart basics of Purchase and Contract manuals, CDA Rules & Vigilance matters. The programme is arranged with the help of L&D department since the year 2011 and so far 219 participants have been covered.

There has also been an endeavour to reach the door steps of every department through Sensitization Program on vigilance matters by visiting each and every department of Field Head Quarter and other spheres. In such visit, a team of Vigilance Officers interacts with executives of the department on one-to-one contact basis. This program was introduced in the year 2011 and so far 796 executives have participated in the programme covering all the spheres of OIL.

Vigilance Awareness Week (VAW): Vigilance Awareness Week is celebrated every year as per instruction of the Central Vigilance Commission with an aim to educate the people about the dangers of corruption and sensitize them about the evil consequences of corruption and thus to launch a systematic campaign against it. It is being observed to commemorate the birthday of Sardar Ballabhbhai Patel, the Iron Man of India which is on 31st October. He was the shining example of probity in public life.

To mark this occasion and to propagate the message of preventive vigilance, various programs like Bi-Cycle Rally, Joint Seminar on theme topic, Training for executives by outside faculty, quiz competition, on the spot

essay writing competition, debate completion for school/college students, painting/drawing competition etc. are organised every year. In the inaugural day of the Week, events like pledge taking ceremony and Bi-Cycle Rally with mass participation are included.

A quarterly magazine named as "In Touch" is published by our NOIDA office to generate awareness for vigilance. It is always our endeavour to continuously strive for more effective and positive vigilance in the organization.

In addition, Vigilance Officers are sent for attending seminars/workshop/training programmes at regular intervals to update their knowledge on the relevant subjects. Moreover, training programmes on vigilance & allied matters by external faculties are also arranged for young executives of other disciplines from time to time.

Apart from above, OIL is also having a complaint handling system through a designated Nodal Officer who takes up the complaint matter with the concerned departments for a detail information/clarification and then forwards a reply to the complainant. Thus, a transparency in the activities of the company is maintained.

(b) Through improvement of systems and procedures:

Vigilance Department also takes concentrated effort to study the existing systems and procedures to detect any loopholes for malpractices and recommends appropriate action towards suitable amendment of the same to make the systems and procedures more robust. In doing so, effort is always given about adopting best practices in the industry to make systems and procedures more effective, transparent and corruption free. It has also been our consistent endeavour to introduce new systems and procedures to prevent corruption in OIL.

It is worthwhile to mention here that some of such systems and procedures in place so far in OIL like Bill Tracking System and Report Generation from the system, File Tracking System, Updating of Purchase and Contracts Manuals, Updating of

Vendors lists, Inspection at site, Surprise inspection, Regular or CTE type inspections at various existing and ongoing projects, On-line vendor registration, E-tendering, e-payment, availability of information on placement of purchase orders and award of contracts in OIL's website, Status of vendor's payment etc.

It has also been observed that the above systems and procedures which are adopted in OIL have helped tremendously in bringing awareness amongst the executives in particular and all the employees in general in preventing corruptions.

Corruption in the delivery of public services occurs due to human interface which should be avoided by use of IT. Leveraging of technology in functioning of an organization can address the challenges of corruption to a large extent. The adoption of technology initiatives can mitigate various factors which lead to corruption like lack of transparency, cumbersome procedure and delay in decision making. The Central Vigilance Commission therefore, has been advocating leveraging of technology in organizations to combat corruption.

(c) Through proactive vigilance activities:

- Simplifying rules/procedures.
- Curtailing discretions.
- Improving Transparency.
- Bringing in fairness, competitiveness and accountability in the organization.
- Promoting awareness among clients.
- Educating / sensitizing the officials.
- Monitoring posting of officials with clean integrity in sensitive posts.

Good Governance: Good Governance simply means the process of making good decisions and their effective implementation. The word governance is used in several contexts like corporate governance, international governance, national governance and local governance. The key attributes of good governance as identified by Human Rights Commission are:

- Transparency
- Responsibility
- Accountability

- Participation
- Responsiveness (to the needs of the people)

It is an established fact that corruption is the major obstacle for achieving good governance. By incorporating above elements in the governing system, corrupt practices can be eradicated to the maximum extent and in the process, good governance would be a reality in the organisation.

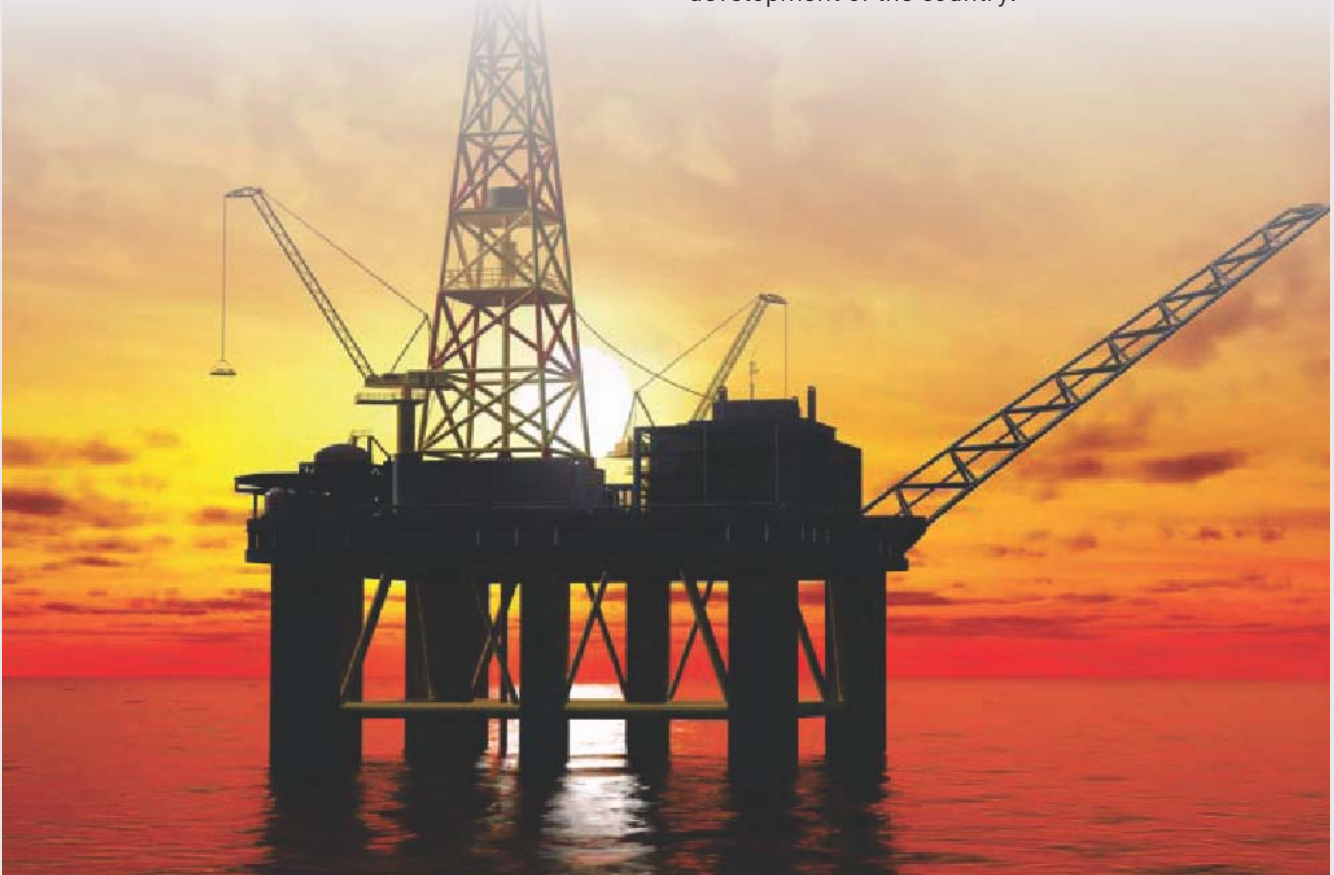
As per another school of thoughts, there are eight major characteristics of good governance. These are participatory, consensus oriented, accountable, transparent, responsive, effective & efficient, equitable & inclusive that follows the rule of law. The very presence of these characteristics assures that corruption is minimised and make the system responsive to the stake holders.

From the above, it is evident that Good Governance and Preventive Vigilance have several common characteristics. Hence, Preventive Vigilance is considered as the most effective tool for curbing corruption and works as catalyst towards achieving good governance. It is worth to mention here that good governance is an ideal and it is very difficult to

achieve the same in totality. Only a very few countries in the world have so far come close to achieve good governance. Nevertheless, with our concerted and consistent endeavour along with the help of various preventive measures, we can make our beloved organisation, Oil India, corruption free and thereby facilitating good organisational governance and also contributing significantly in the growth of the nation.

The aforesaid are some of the general aspects of preventive vigilance measures that could be adopted in public sector undertakings. But they will vary depending upon the type of activity, size of the unit, the areas of operation etc. However, the point to be borne in mind is that preventive vigilance measures help the management to get optimum results from the different activities.

To conclude, it may be said that all these procedures could work well only if there is an environment of total commitment and honesty. Let us therefore dedicate ourselves to be honest to implement the vigilant procedures effectively to make our organisation function in an effective way so that it could reach the commanding heights in the economic and social development of the country.





हरि हर शर्मा
उप महाप्रबंधक, (तकनीक)
ISPRL

प्यासी नदी — एक तकनीकी विश्लेषण

नदी की प्यास के विषय में सोचते ही खयाल आया कि नदी और वह भी प्यासी, यह कैसा मजाक है? यह तो वैसा ही हुआ जैसे एक शायर ने कहा था “यू तो एक मुद्दत तक दरिया उसके पास रहा, कोई तो मजबूरी होगी जो वो तस्नाकाम रहा” सोचने का विषय है कि दरिया किनारे यदि कोई पानी को तरसे तो इसे किस प्रकार लिया जाए। किन्तु सिर से नकारा भी नहीं जा सकता, अलबत्ता जानकारी हासिल कर उसे समझने की आवश्यकता है।

इसके लिए सबसे पहले प्यास को परिभाषित करना आवश्यक है। व्यक्ति स्वभाव से ही सभी प्राणियों में अपेक्षाकृत अधिक विचित्र होता है तथा उसकी आकांक्षा, अभिलाषा और जरूरतों को समझना भी इतना आसान नहीं होता। व्यक्ति की प्यास समयनुसार बदलती रहती है, यहाँ पर पानी से संबंधित प्यास को ही ध्यान में रखा गया है।

किसी व्यक्ति के नदी किनारे बैठकर पानी को तरसने के कई कारण हो सकते हैं। पानी बहुत गहराई पर था, दूषित था, उसमें जलजीवों का खतरा था, पानी लेने पर पाबंदी थी, वगैरह-वगैरह कई परेशानियाँ हो सकती हैं। यह जानना अतिआवश्यक है कि पानी की आवश्यकता नगर जल आपूर्ति, फसल की सिंचाई, पीने के लिए या किसी दूसरी घरेलु अथवा व्यवसायिक वजह से थी। आवश्यकता इससे पता चलेगा कि किस रूप में पानी का इस्तेमाल होना था।

नदी के प्यासेपन के शोध कार्य को सरल करने के लिए इस वाक्ये

से ताआरुफ होना अच्छा रहेगा। कुछ दशकों पहले प्रयाग में सुबह सवेरे एक स्वामी स्वरूप महात्मा हमेशा की तरह त्रिवेणी में स्नान करने के लिए जैसे ही उन्होंने डुबकी लगा कर गंगा मैया का आवाहन किया, मैया मानव रूप धारण कर पृकट हुई और महात्मा को संबोधित करते हुये आग्रह कियाय

“हे मानव! मैं सदियों से बिना भेद-भाव से सभी व्यक्तियों के शारीरिक कष्ट व पापों को धोते और ढोते आ रही हूँ। भौतिक गन्दगी के अलावा मानसिक स्तर को भी संवारते-संवारते मैं स्वयं इस हालत में पहुँच गयी हूँ कि मुझे खुद को ही शुद्धिकरण की आवश्यकता है”

मैया ने आगे कहा कि —

“पानी व वातावरण दूषित होने के कारण मेरी भूख और प्यास की भरपाई नहीं हो रही है, इसलिए मानव कल्याण को अमलीजामा पहनाने के लिए, पहले मुझे स्वच्छ पानी व स्वस्थ वातावरण उपलब्ध कराईए तब ही किसी के गंगा स्नान का कोई महत्व होगा अन्यथा सब निरर्थक रहेगा”।

हमारे अहम मुद्दे पर वापस आते हुए, नदी की प्यास और सही गुणवत्ता वाले पानी की जरूरत व उपलब्धता को स्थापित करने के लिए यह जानना जरूरी है कि नदी बहती क्यों है? इसका बहाव, स्वास्थ्य व अस्तित्व किस सिद्धान्त पर आधारित हैं? इसमें पानी कहाँ से आता है? नदी की जिंदगी कैसे सँवारी जा सकती है?



क्या इसकी जिंदगी में मनुष्य का हस्तक्षेप है? नदी का वातावरण, बरसात, पृथ्वी, घास, वृक्ष, पशु-पक्षी, जीव-जन्तु, इंसान व अन्य सभी प्राणियों से क्या संबंध है? इन बातों को समझने के बाद हम नदी की प्यास और उसके दीर्घायु होने के विषय में कुछ सोच पाएंगे।

उपरोक्त बयां, पानी की प्यास के अलावा हमें प्यासे पानी की प्यास के बारे में भी जानना जरूरी है। व्यक्ति तथा धरती से संबंधित प्यास और यासे पानी की जरूरत को समझने के बाद ही हम नदी की प्यास के विषय में कुछ ठीक से कह सकेंगे। इन्सानों, अन्य जीवों व पेड़ पोधों की प्रत्यक्ष व परोक्ष जरूरतों को पूरा करने के अलावा नदी और भी कई जरूरतों जैसे जल मार्ग आदि की भरपाई करती है। निरंतर गिरते जल स्तर के लिए कृत्रिम सिंचाई सबसे अधिक नुकसानदेह साबित होती है।

यह सर्वविदित है कि गुरुत्वाकर्षण के सिद्धान्त के अंतर्गत पानी हमेशा ऊंचाई से ढलान की ओर बहता है। इसी प्रकार नदी का पानी भी निचले स्तर की ओर प्रवाहित होता है, जिसे हम नदी का बहना कहते हैं।

हालांकि बहाव तो गुरुत्वाकर्षण के सिद्धान्त पर निर्भर करता है परंतु इसमें पानी की उपलब्धता की कार्यप्रणाली थोड़ा भिन्न होती है। आरम्भ में नदी थोड़े पानी के साथ ही अपनी लंबी यात्रा पर निकल पड़ती है, रास्ते में विभिन्न प्रकार से पृथक् गुणवत्ता के पानी का विलय होता जाता है जो नदी के विस्तार में सहायक सिद्ध होता है। उदाहरण के लिए हम गंगा मईया को लेते हैं।

गंगा मईया का पृथ्वी पर आना हिन्दू पौराणिकता के अनुसार चाहे जो भी हो लेकिन यह सर्वविदित है कि गंगोत्री ग्लेशियर से शुरू होकर गंगा मईया सागर में विलीन हो जाती है। ग्लेशियर जो कि शनरू शनरू पिघल कर सिकुड़ता जा रहा है, अब तक पच्चीस किलोमीटर से अधिक सिकुड़ चुका है, वहाँ से अच्छी गुणवत्ता वाला शुद्ध पानी नदी में आता है तथा एक लंबी यात्रा के बाद दूषित होकर समुद्र में विलीन हो जाता है। इसी प्रकार सभी नदियों की शुरुआत किसी ग्लेशियर, झरने या जमीन से फूटते चश्मे से होती है। रास्ते में सहायक नदी, नाले व अन्य स्रोतों से किसी भी गुणवत्ता वाला पानी संग्रहीत होता रहता है। बरसात के दिनों में सबसे अधिक मात्रा में पानी नदी की धारा में जुड़ता है।

किसी भी नदी का मुख्य जल स्रोत उसमें मिलने वाली धाराओं के अलावा उसके किनारों से आने वाला पानी होता है, जिसके चलते ही कोई भी सरिता जिंदा रहती है, अन्यथा वह सूखने लगेगी। सामान्यतरु नदी के दोनों किनारों में पानी का स्तर नदी में बहने वाले पानी के जल स्तर से ऊपर होता है। इसी कारण पृथ्वी से पानी नदी में आता रहता है और नदी का जीवन चक्र अनवरत चलता रहता है। जब कभी भी जमीन और नदी के जलस्तर में तारतम्य टूटता है तब नदी में पानी की कमी होना शुरू हो जाती है और यहीं से यह स्थिति नदी की प्यास बढ़ाने में शुमार होती है।

सर्दी के दिनों में नदियों का जलस्तर अक्सर निम्न स्तर पर होता है। फसल को सींचने, पीने की जल आपूर्ति करने व औद्योगिक जरूरतों को पूरा करने के लिए किसान, नगरपालिका व उद्योग क्रमशः जरूरत के अनुसार नदी से पानी निकालते हैं। अक्सर नदी के अलावा भूगर्भ से भी नलकूपों द्वारा पानी निकाला जाता है ऐसा करना जीवन यापन के लिए आवश्यक है। जनसंख्या में वृद्धि तथा विकास कार्यों के लिए पानी की आपूर्ति करते-करते हम इतना पानी लेने लगे हैं कि नदी का किनारों के साथ तारतम्य समाप्त हो जाता है जिसका परिणाम नदी के जल स्तर की कमी के रूप में सामने आता है। धरती के पानी के स्तर में भी दूर-दूर तक गिरावट दर्ज होती है फलस्वरूप चोया बहुत नीचे चला जाता है। जमीन में पानी के स्तर को चोया कहते हैं। वास्तव में नदी का सूखना ही उसकी प्यास का पर्याय बन जाता है और नदी प्यासी कहलाने लगती है।

स्थिति भयावह तब हो जाती है जब पृथ्वी में जल स्तर और नीचे चला जाने पर नदी का अस्तित्व ही मिट जाता है और वह सरस्वती नदी की तरह सूख कर कहानियों में विलीन हो जाती है। मां सरस्वती नदी भी मिटने से पहले अवश्य ही सूखती गई होगी? शायद उसकी भूख और प्यास ही उसकी मृत्यु का कारण बनी होगी? सरस्वती नदी का पृथ्वी की सतह से लुप्त हो जाना इस बात का प्रमाण है कि उसकी बेइंताह प्यास और भूख ने नदी को अस्तित्वहीन बना दिया होगा।

जैसे-जैसे भूजल का स्तर गिरता है वैसे ही नदी में पानी की कमी खलती है और नदी अतृप्त हो जाती है। वैसे तृप्ति ही एक मात्र ऐसा माप-दंड हो सकता है जिससे यह पता चले कि भूख-प्यास की संतृप्ति हो पाई या नहीं। जिस प्रकार स्त्री-पुरुष एक दूसरे के पूरक हैं उसी प्रकार नदी और पानी भी एक दूसरे के पूरक हैं। परंतु यदि दोनों स्वस्थ हैं तब ही पूरक हो सकते हैं। यदि पानी स्वयं ही प्यासा है तो नदी की प्यास कैसे बुझाएगा?

अब यहां प्रश्न उठना वाजिब है कि पानी और प्यासा, हुजूर यह तो बहुत बड़ी विडम्बना प्रतीत होती है। जी हाँ, प्यासा पानी एक हकीकत है, पानी की प्यास आक्सीजन से बुझती है। पानी की विशेषता को जानने के लिए इसके स्वास्थ्य को मापना पड़ता है, बायोलोजिकल ऑक्सीजन डिमांड (BOD), कैमिकल ऑक्सीजन डिमांड (COD), टोटल एवं वोलेटाइल ऑयल कंटेन्ट (TOC/VOC), धुंधलापन, टरबिडिटी, टी डी एस व दुर्गन्ध इत्यादि इसके मापदंड हैं। सेंट्रल पोल्यूशन कंट्रोल बोर्ड (CPCB) द्वारा मानक निर्धारित किए गए हैं जिनसे अनुसार पानी के स्वास्थ्य को मापा जा सकता है। नाले आदि का गंदा पानी नदी में अधिक मात्रा में मिलने से नदी का जल दूषित हो जाता है और नदी बीमार, इसलिए इसमें प्रवाहित करने से पहले जल के शुद्धिकरण पर बल दिया जाना आवश्यक है, ताकि प्रवाहित जल अपनाने योग्य गुणवत्ता हासिल कर सके।

यदि पानी अस्वस्थ है तो नदी को तृप्त नहीं कर सकता अर्थात् नदी प्यासी रह जाएगी। थोड़े दिन बाद अतृप्ति उसके अस्तित्व व अस्मिता को खतरे में डाल सकती है। ठीक उसी प्रकार जैसे सैंकड़ों वर्ष पहले सरस्वती नदी लुप्त हो गई, यमुना नदी भी जर्जर हालत में दम तोड़ने की कगार पर पहुंच चुकी है।

गंगा मईया जो सदियों से हमारी परंपरा का लालन-पालन व पोषण कर रही है, हमारे तन-मन को पवित्र कर अभय-दान देती रही है। इतना ही नहीं यह जीवित व मृत आत्माओं को भी शांत करती रही है, वह हमारा भला करते करते स्वयं इतनी मलीन हो गयी कि अब इसे खुद को ही शुद्धिकरण की आवश्यकता आन पड़ी है। इसका पानी कॉर्सीजेनिक हो गया है और समाचार पत्रों के अनुसार इसमें डुबकी लगाने वाले व्यक्ति कैंसर की सौगात मुफ्त में ही ग्रहण कर सकते हैं।

जब से मनुष्य के कल्याण हेतु विकास कार्यों में बेतहाशा वृद्धि हुई, तब से नदियों का पानी लगातार दूषित हो रहा है। गंगा मैया भी सभी जीवित इन्सानों के शारीरिक व मानसिक पापों के बोझ को ढोते-ढोते इतनी जर्जर, शिथिल व दूषित हो गई है कि अब यह कार्य उसकी क्षमता के परे है।

जीवित इन्सानों के अलावा मृत आत्माओं की शांति हेतु भी मनुष्य गंगा मईया पर ही निर्भर रहते हैं। उनके मरणोपरांत भी उनके वैचारिक पापों को धोते व ढोते तुम्हारी गंगा मैया को स्वयं ही शुद्धिकरण की आवश्यकता पड़ गयी है। मनुष्यों ने यदि नदियों के सेहत का ख्याल न रक्खा, उनकी भूख-प्यास को ऐसे ही नजरअंदाज करते रहे तो एक-एक करके सभी नदियों का भविष्य भी बहन सरस्वती और यमुना नदी के माफिक हो जाएगा।

यानी मनुष्य के सस्टेनेबिलिटी जैसे खोखले चोचले धरे के धरे रह जाएंगे और मानवीयता भी इस विकास की भेंट चढ़ जाएगी। इसलिए जान बूझकर व सोच समझ कर अनदेखा कर रहे प्राणियों सब कान खोल कर सुन लो, या तो वक्त रहते संभल जाओ वरना अपने होने वाले विध्वंस का स्वयं को जिम्मेवार समझो। ज्ञान रहे कि नदियां स्वच्छता के अभाव में तुम्हारा लालन-पालन नहीं कर पाएंगी इसलिए जागो और खोखले वाक्यों को त्यागकर सचमुच समाज कल्याण हेतु कार्य करो तब ही मनुष्य जाति का कल्याण संभव है।

भला हो हमारे महान देश के मुखिया, प्रधान मंत्रीजी का कि उन्होंने

न सिर्फ सोचने विचारने के लिए देशवासियों के समक्ष रखा बल्कि गंगा तथा अन्य नदियों की सफाई का भी बीड़ा उठा लिया है। यह सुनने में जितना सरल है करने में उतना ही कठिन कार्य है। सभी उत्सर्जन करने वाले स्रोतों के पानी को नदी के जल में मिलने के पहले गंदे व प्रदूषित द्रव्यों को शुद्धिकरण की प्रक्रिया से गुजरना होगा जो एक टेढ़ी खीर है मगर है बहुत ही आवश्यक। अशुद्ध या ट्रीटेड पानी को प्रवाह करने की भी एक सीमा होती है, नदी सीमित मात्रा में अशुद्धियों को बर्दाश्त करती है, अधिक अशुद्ध मात्रा का विलय होने पर नदी के पेट में अफारा आ जाता है और पानी बीमार हो जाता है।

एक और समायोग प्रकाश में आया है कि अत्यधिक पानी निकास से जहां एक ओर नदी सूख जाती है वहीं दूसरी ओर तटवर्गी राज्यों के पहाड़ी इलाकों में नदी के पानी की मात्रा उस समय बढ़ जाती है जब नदी से अधिक रेत निकालते हैं। इसके फलस्वरूप जमीन का जरूरत से अधिक पानी नदी से होकर समुद्र में चला जाता है, नतीजतन जमीन का जल स्तर इतना घट जाता है कि धरती मां और अधिक प्यासी हो जाती है तथा फसल की प्यास बुझाने हेतु वहां पर नलकूप और अधिक गहराईयों में गाड़ने पड़ते हैं और यह गहराई शनरू शनरू बढ़ती जाती है।

उपरोक्त पड़ताल व प्रस्तुति वैज्ञानिक तथ्यों पर आधारित है इसमें धरती, पानी और नदी की प्यास का विश्लेषण किया गया है। इस प्रकार जहां एक ओर नदी की प्यास की पुष्टि होती है वहीं पर पानी और धरती की प्यास का जायजा भी मिलता है। व्यक्ति को अपनी प्यास बुझाने का पूरा हक है लेकिन किस कीमत पर? क्या नदी को प्यासा बना कर? पानी को प्यासा बना कर? या फिर धरती की प्यास बढ़ाकर? हालांकि ये सब देखने में सिर्फ कुछ शब्दों का हेर फेर लगता है लेकिन इसकी वास्तविकता हमारे जीवन की वास्तविक डोर को थामे हुए है लिहाजा इसके बारे में तुरन्त ही कुछ जबरदस्त कदम उठाने की जरूरत है।

नदी व पानी की प्यास बुझाने के लिए कुछ सरल उपाय अपनाने की आवश्यकता है। कुछ नायाब तरीके इजाजत किए जाएं। सबको मिलकर बिना देरी किए साथ-साथ या अलग-अलग पुख्ता तरीकों जैसे बड़े पैमाने पर रेन वाटर हारवेस्टिंग इत्यादि को अपनाना चाहिए। तथा अन्य जल संरक्षण के संभावित तरीके इस्तेमाल करना नितांत आवश्यकता है ताकि हम अपने भविष्य संवार कर सुरक्षित कर सकें।

**ईमानदारी, पारदर्शिता का सच्चा स्वरूप
बेईमानी और भ्रष्टाचार दुनिया का सबसे खराब रूप**



Binoy Bharali

Chief Geologist, Business Development

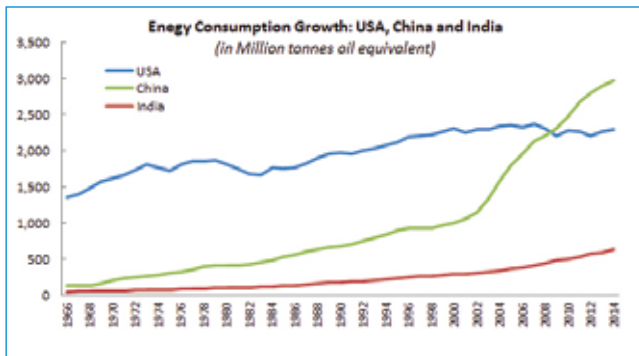
CLEAN ENERGY SOURCE AND TRANSITIONAL CHALLENGES

Many of us, being associated with Oil & Gas industry must be habituated to some common questions in social gatherings with friends and relatives: *“How long oil and gas will last?”* *“What will happen to energy supply when oil and gas will exhaust?”* We generally keep some tricky and diplomatic answers ready with us to make people feel that there is nothing much to worry about. But personally I sometime ponder about the issue, ‘the future energy security’, and decided to ‘Google’ it for a better understanding.

The demand for primary energy is growing day by day. BP Statistical Review, a reliable publication of world energy economics, projected a 37% growth of world energy demand in next 20 years. International Energy Agency (IEA) also projected a similar growth (35%) over the same period. The huge future energy demand growth has been predicted looking at faster pace of development in few emerging economies led by China, India, Brazil, South Africa. While world average of energy demands growth is 2.1% per annum during last decade, these developing nations showed a 4.2% growth over the same period. The next important factor

that contributes to such high energy demand is world population growth, which expected to touch 9 billion by end of 2050. Finally, the revolutionary changes in communication system in last three decades that accelerated globalization, brought awareness for better lifestyle and so higher per capita energy consumption. Today’s world requires a new sources of energy, that is abundant to support the demand growth and affordable to a larger mass of people to keep the pace of development unaltered. We can foresee a lot of changes in the energy value chain, in terms of energy source, energy converter and energy services. Fossil fuel; Oil, Gas and Coal that supply about 80% of total energy demand will exhaust in few decades, leaving behind the earth and atmosphere heavily and irreversibly polluted. Therefore most common alternative that has been pushed forward by ‘smart nations’ as an early replacement as well as future energy source is the renewable energy: Wind and Solar. We all become busy with policy incentive and technological knowhow for a transition to renewable energy source. But transition may easy and smooth in

a world that has been developing and surviving on a fossil fuel. How long it would take for transition into a green fuel? Can we overcome the obstacles in the path of desired transition? To have an insight to these uncertainties, let us analyse few past energy transitions and present supply scenario.



The Energy Value Chain and Transition:

The energy value chain generally consists of the following four major elements:

- Energy Resources:** *Like the fossil fuel; coal, oil or gas or the renewable; wind or water etc.*
- Energy Carrier:** *Such as Gasoline, Diesel, Electricity*
- Energy Converter:** *Such as an automobile that convert energy in gas into mechanical energy or a light bulb that converts electricity to light, also room heaters, refrigerators etc.*
- Energy Services:** *That is actual form in which we use energy such as lighting, heating, cooling, transportation and communication.*

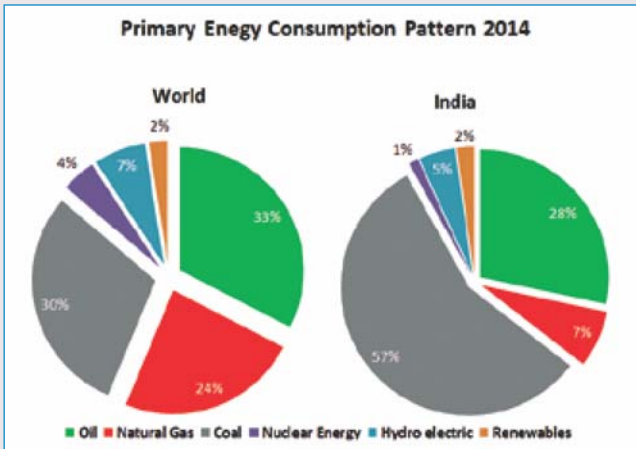
The changes in pattern of use of energy or a 'energy transition' may occur at any level or in multiple levels of this value chain. If we look back at the history of energy use, we see that limited number of transitions took place at source level starting from physical energy of man and animals, through heat energy from firewood, biomass and coal, mechanical and electrical energy from hydro power, oil and gas. On the other hand, significant and visible changes took place in carrier, converter and service level. For example, earlier wind power was used in windmills as mechanical energy for crushing grains but modern days wind power is converted to electricity by modern wind turbine generator, and the output electricity is used for various energy services

like heating, cooling, transportation and lighting. Coal, initially used for household heating, cooking, steam engines and metal smelting, later becomes main input for power plant for electricity generation. Likewise, transition took place in Energy converters, electric bulb evolved from conventional filament bulbs to discharge tube, then CFL and finally LED technology. There are numerous such examples in the energy sector that has undergone changes at various levels, especially since the onset of industrial revolution.

Two major transitions took place at source level in the past. Initially, wood, which was the main source of energy till 1884, was gradually replaced by coal by the end of 1910. The next change of source took place, when oil and gas started gaining its share since early parts of 20th century and together acquired about 70% of total energy source by early seventies. But these changes were not instant, and largely controlled by factors in addition to source advantage, viz. socio-political causes, development of energy converters, and the services demanded by the changing world. Let us now briefly look at the factor for energy transition.

Drivers for energy transition:

The demand for energy services is essential precondition for energy transition. When more people prefer to have cold beer or hot shower, when more people can afford air-conditioning or high power vehicles, the demand for energy increases exponentially. Partially this demand is fulfilled by technological improvement like more energy efficient engines or low power consuming appliances. But when the demand exceeded supply, transition is inevitable. The other contributor for transition is the cost advantage. Wood was the preferred fuel for steam engines as it was initially abundant from clearing of forests for agriculture. Gradually, wood become costlier and replaced by coal which become cheaper due to growth of the coal industry. A third cause for energy transition is policy decision which effects the energy consumption. Policy decision like that taken by OPEC to regulate oil supply, recent UN resolution to control CO₂ emission, subsidies on clean and renewable energy sources or decision of railways to phase out steam engine etc trigger energy transition. OPEC decision to surge oil supply last year caused sudden drop of price and the unconventional oil and gas is struggling as energy sources.



Transition to a Clean Energy Source: Expectations and Constraints

History proves that search for an alternative is not a present day phenomena but repeated many times in the past. As discussed already, Coal was used as an alternative to firewood. Petroleum oil and gas emerged as alternative to coal. Unconventional hydrocarbon, shale oil, tight oil and gas are coming as alternative to conventional oil and gas. It is important to note that, none of the energy sources have been able to replace the earlier source totally, and older forms of energy are more or less still in demand in different capacities. Economics, global geopolitics, resource availability and available technology determine the dominance of one source of energy or the other.

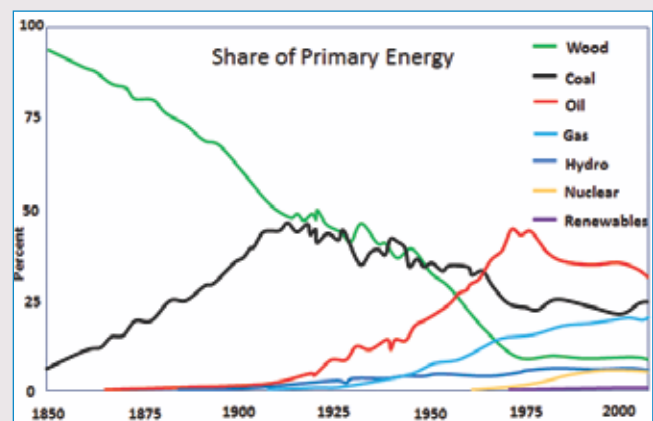
Let us briefly look at the present day drivers for transition to a new and sustainable source of energy:

- Inadequate supply of conventional energy, source wise and region wise: Limited access to one or other form of conventional energy due to uneven distribution in the nature. The major part of Oil and gas reserve is concentrated around middle east countries, Russia and Venezuela. Coal is having relatively widespread occurrence over seventy countries but major reserve concentrated in USA, Russia, China and India. Not all kind of terrain and climatic condition support hydropower.
- Limited resource of conventional energy: Fossil fuel, mainly oil and gas resource are not infinite and will exhaust one day. At present consumption rate, the remaining oil and gas reserve will be emptied within fifty years.

iii) Environmental issue: As per BP Energy Outlook, projected emission from fossil fuel may be 25% higher in 2035 than present level, partly due to higher usage of coal in rapidly developing economies. After the Nuclear plant disaster in Japan in 2011, many countries of the world is putting a second thought on their planned nuclear power projects.

iv) Growth in consumer: Global population has exploded from around 2.5 billion in 1950 to 7.2 billion in 2013. As per UN forecast, population will touch 8.1 billion in 2025 and 9.6 billion in 2050. The combined energy demand from two developing economies, India and China is rapidly growing from a 10% share of total global consumption in 1990 to 24% in 2010, and likely to become 34% by 2040.

As of now, in addition to fossil fuel, hydroelectricity is also categorized as conventional energy considering its presence for long time as a primary source of energy. A limited energy options, both renewable and non renewable are under trial as an alternative to these conventional sources, amongst them, the two oldest and renewable source of energy, Wind and Solar power is now coming up in a 'new technology' attire as the future energy source but we are still far behind in accepting them as "new conventional". There are advantages and challenges for wind and solar power at every joint of the energy value chain, right from source through carrier and converter in providing the desired energy services. Our discussion now rolls over to the challenges in the process of transition to renewable energy.



The challenge for transition:

Fossil fuel is the convenient source of energy

because of its ease of use and high energy density. It is generated through the long process of conversion of bio-mass energy over millions of years into dense solid, liquid or gas form; we require only technology for extraction, transportation and conversion. On the other hand, renewables are less dense energy sources, they depend heavily on specially engineered equipment and infrastructure for capture and conversion. Despite these basic disadvantages, resource wise renewable energy is unlimited and probably the only solution of future energy demand. But,

Transition takes time:

Wood was dominant fuel for centuries, until it was overtaken by coal in 1864. Then it took 80 years for oil to make a market share of 30 percent of energy demand in 1946. LNG, a technology discovered in 1850, is now only attaining global scale as energy carrier.

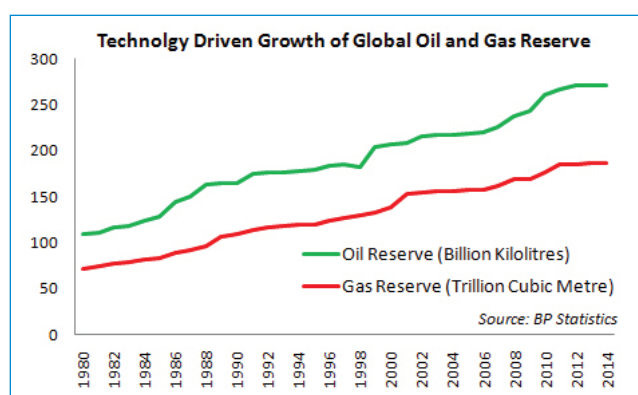
Technology and cost were not the only reason behind such long transition, but factors such as ease of transportation, availability of supply etc. play the key role. The change process involves gradual shifting of the energy mix in a way that it does not retard the growth rate of the developing nations. For example, presently coal accounts for the maximum share in the total primary energy mix in two fast growing economies, India and China. It is projected that consumption of coal will further increase till 2020 in these two nations in view of fast industrial growth. It is also expected that these countries can afford to replace coal with a clean but high cost fuel after achieving the desired level of development. To overcome this delay of transition, the energy industry is to find out an economically attractive, low risk and technologically feasible option.

Technological innovation accelerates transition:

Taking the example of coal again (we do not have many either), its use in Britain started in 13th century and initially used for metal works smelting. Coal was not considered for domestic usage as replacement of firewood. The fireplace of the time (for wood) was located at the middle of the house and was not suitable for coal as it releases heavy smoke during burning. Later a new fireplace evolved, confined to one side of the room attached to the wall, where coal is allowed to burn in a grate that facilitate increased oxygen supply, and a narrow chimney that induce a draft to pass through for affective burning of coal. The new design

allowed household heating at low cost and higher usage of coal.

The industrial revolution accelerated transition to coal further. Steam powered ships and railroads become the chief form of transportation. The technique of making “coke”, a modified form of coal replaced charcoal as primary fuel in blast furnace. Later, transition from coal to oil was triggered by development of internal combustion engines, an energy converter. With this technological advantage, massive production of aeroplanes, ships and motor vehicles during the Second World War gave more room for oil.



Reverse affect of Unconventional in energy transition:

Unconventional oil and gas is likely to slow down the transition path for alternatives. The fear of exhaustion of fossil fuel that engulfed the world during seventies was significantly reduced by the emergence of tight oil, shale oil and shale gas along with heavy oil and oil sands. Existence of huge resource of shale gas and shale oil was known for long time. But development of low cost horizontal drilling and multistage fracturing technology in last one decade made it possible to extract them economically. As a result there is constant increase in oil and gas reserve in last few years, so also the life of conventional energy. If ongoing R&D works for commercial extraction of methane from “Gas Hydrate” become successful, it may change the global energy supply scenario with a major impact on the renewables.

Low energy density is a concern:

With the present technology, alternate renewable energy fails to produce power in sufficient quantities to supply industrial growth. Many of the alternative energy storage technologies are characterized by low



energy density. In case of standard electric vehicle, per KG of battery contain 0.5 MJ while per KG of gasoline contains 46 MJ. Less energy density also requires large area to develop. To generate a 1000 MW power, a coal based unit requires 1 to 4 sq km, a photovoltaic array require 20-50 sq km, a wind turbine farm require 50-150 sq km and a biomass based plant may require upto 4000 to 6000 sq km.

It is important to note that maximum demand for liquid fossil fuel is from transportation sector while maximum alternate energy is harnessed in electrical power. The switchover process will require major changes in car design and manufacture units, development of a full supply chain (recharge station), battery industry as well as for rare earth elements required for such industry. Sometime I wander over calls by environmentalist to use bi-cycle for day to day use. Is it a practical proposition it is in big cities? Or can we pedal an aeroplane which is no more a luxury but an unavoidable mode of transportation? We cannot think of a clean technology or lifestyle that would not support the growth and speed.

The way ahead - A different energy path for growing economy:

There is a need to take an alternative energy path to meet the desired energy demand. It is easy and important to induct alternative energy path to countries and areas where conventional source of energy is limited but alternative energy like solar, wind, water are in abundance. India, because of its geographic position, receives about 5000 Twh of solar energy per year, one tenth of this potential will end up India's power crisis.

Renewable energy has particular relevance in remote and village areas to enhance lifestyle. India shows the highest growth in energy consumption last year and therefore has maximum capacity to accelerate energy transition.

For transition to renewable energy, a transition from the existing cluster energy model to a distributed energy model required. Present cluster energy model like coal based or gas based production units involves supply of fuel to a centralized large capacity power generation unit, then distribute the power to the areas of demand. On the other hand, renewable alternatives require a distributed energy model, where power generation units should be spread out in all areas where they are available, be it a solar, wind, bio-mass, geothermal etc. All the form of distributed power, generated by these micro units need to be connected to a supply system to make the system more reliable. The concept includes strategy to overcome the non-continuous nature of the renewable energy source, eg. tap the geothermal during night, solar energy during day or wind energy during monsoon.

There is a positive sign, that renewable is the fastest growing source of energy in last few years, though it has long way to go to take a major share in the total primary energy demand. Share of oil as energy source is slowly decreasing, with gradual increase in use of gas, the cleanest amongst fossil fuel and the renewables.

[Views given in the article are authors personal and does not represent Companies policy/views on the subject at all]

Integrity without knowledge is weak and useless, and knowledge without integrity is dangerous and dreadful

- Samuel Johnson

Sasanka Pratim Deka

Head (Field Engineering Department)



VIGILANCE : A PERSPECTIVE

The true meaning of "Vigilance" can be best described by the 3Es : EEE: *"Everyone's Everyday business in Every sphere of their Life"*.

Yes, this description is true to its meaning. Right from the time we wake up in the morning to the moment we go to bed at night we remain in the state of alertness. In the morning we brush our teeth to freshness ourselves by flushing out the harmful bacteria present in our system. While purchasing any commodities, we often look up at the manufacturing & expiry dates, the MRP, the weight and so on. We purchase vegetables only on ascertaining the freshness and then negotiating their price. We remain watchful to the surroundings of our dwellings, ensuring that the surroundings are always clean. We remain Alert while we drive, avoiding any probable accidents by following the traffic rules & regulations sincerely. Because, we know that there are known pitfalls on violation of the laid down rules & regulations. On a new locality or a new township, we enquire around for the right directions. For a new journey or a new venture, we ask for advises. In a single word we remain "Vigilant" in our everyday business in every sphere of our life.

A few Synonyms for the word "Vigilance" in dictionary are : Watchfulness / Alertness / Awareness / Observation / Attention / Caution & Care. These Synonyms aptly describes the true meaning of Vigilance. Synonyms are described in dictionary terms as the "Words or phase that means exactly or nearly the same as another in the same language." Therefore the synonyms words of Vigilance can be attributed as replacement to each other. But if one closely look to the embedded meaning of the words of "Vigilance", it may be safe to construe that every synonyms words of Vigilance are not stand alone but are only supplementary to each other. You can be watchful and alert to your surroundings only when you are aware of it. Awareness leads to observation and draw attention to the subject, to act with caution and care.

To remain Vigilant is the right of every individual. But then, any Vigilant Act should always be result oriented. It is best to have a well defined goal oriented act that should be beneficial to a majority of the stakeholders. The true meaning of a result oriented "Vigilant Act" can be discovered embedded in the different alphabets of the word "Vigilance" itself :

V : The goals should be **Value** based and **Valid**.

I : The goals should be **Impersonal**.

G : The Goals are to be **Genuine**.

I : The Acts are to be **Impartial**.

L : The Acts should be Legitimate and within the **Law of the Land**.

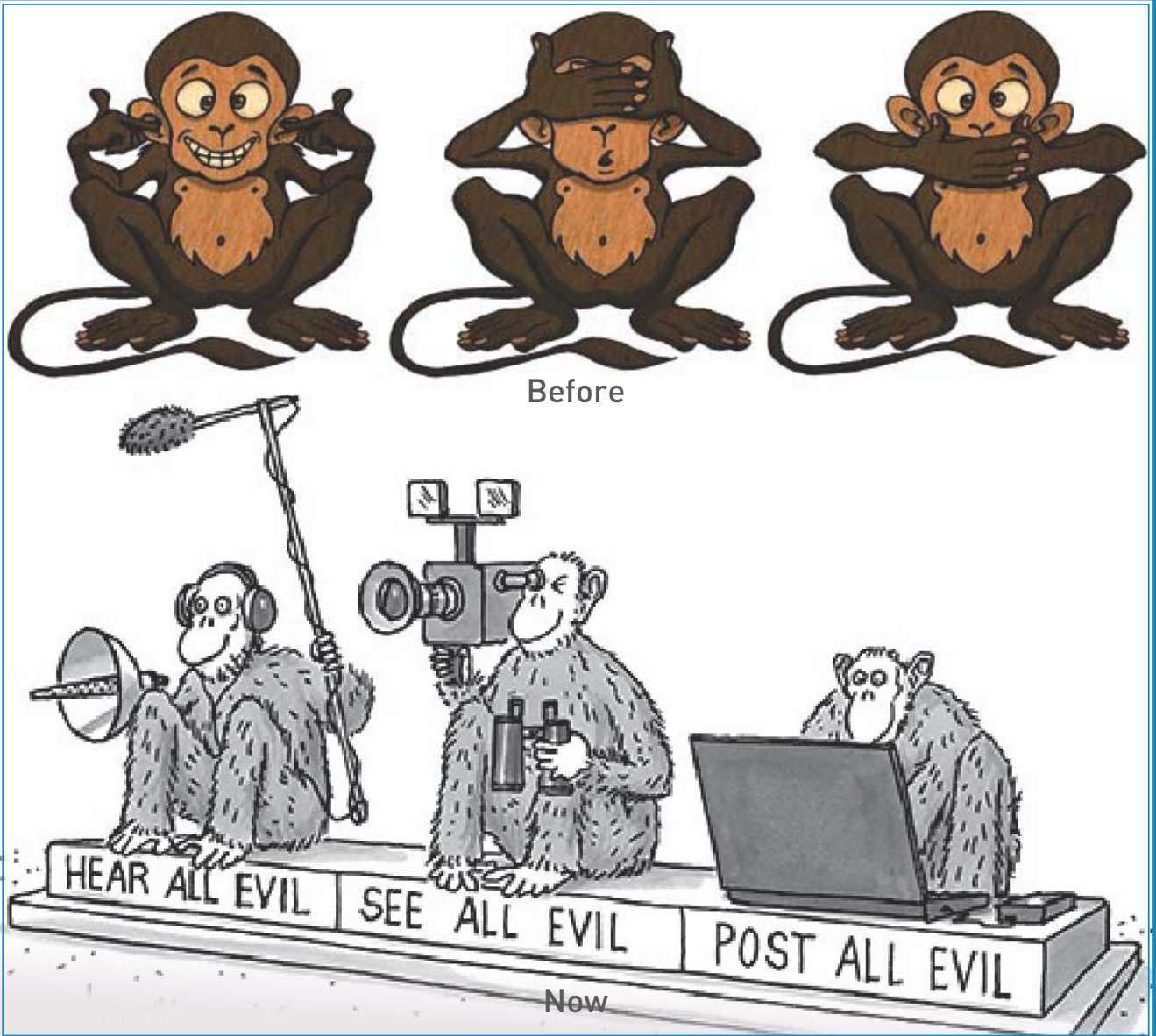
A : The Acts should lead to fixing up **Accountability**.

N : The Results should negate any **Nepotism and Nexus**.

C : **Campaign** around the result is to be build up so that awareness can be spread across.

E : The result should be **Enforceable** and should **Encourage** others to follow.

Yes, our Country is steadily changing. Intolerance towards unethical activities is slowly and steadily stepping up. The steady climb of the Rank in the Corruption Perception Index (CPI) of Transparency International over the years is a litmus indicator of our steady intolerances. In this competitive fast changing world of ours it is best to remember that, for any Act to be legitimate there should be Transparency in the way it is accomplished. It is imperative that the Individuals and the Competent Authorities - be it the Department/ Organisation or the Statutory/ Enforcement Authorities, acts together hand in hand to complement each others. To be effective, the Mantra for any Individuals should be *"Do It Right"* and for the Authorities *"Keep In Touch"*.





P. K. Dhodapkar,
Chief Research Scientist,
R&D Department

IMPORTANCE OF INTERNAL ESTIMATES IN PUBLIC PROCUREMENT

Introduction

The primary function of government is to create infrastructure and provide essential services to its citizen. In carrying out this role, the government incurs expenditure. The various sectors or areas of government spending include defence, rail and road transportation, energy, healthcare, education, irrigation and flood control, etc. A substantial part of the expenditure is in the form of works or services contracts, often through external agencies including private parties. It has been estimated that in India, public procurement represents 20 to 30% of GDP. With a GDP of 1.877 trillion USD (2013-14), the amount of expenditure on public procurement in India is of the order of 500 billion USD. Clearly, effective and efficient spending can ensure social well-being.

While the bulk of government spending takes place through the departments under the various ministries, the expenditure by public sector enterprises also qualifies as public procurement. The hydrocarbon exploration and production (E&P) organizations,

namely ONGCL and OIL, play an important role in meeting the energy requirements of the nation. The outlay of OIL for the 12th Five-year plan is Rs. 18986 crores, whereas the corresponding figure for ONGCL is Rs. 162842 crores. With increasing activities of the E&P organization within and outside the country, there is a trend towards enhanced spending on works and services contracts. Considering the magnitude of the spending, the need for effective utilization of the funds cannot be overemphasized.

Internal Estimate: An Important Tool for Achieving Efficiency in Public Spending

On important tool for cost control and achieving efficiency and effectiveness in spending is preparation of internal estimates for works or services contracts. It essentially consists of arriving at the most likely expenditure to be incurred in the future. The preparation of estimates serves different purposes in public procurement, which are briefly described below:

A. A strategic planning tool: Through estimation, planners in the organizations try to arrive at



the resources required for acquiring certain capabilities, thus facilitating the formulation of a strategic plan.

- B. **As a tool for budgeting:** Good internal estimates lead to better alignment with the departmental and organizational budgets.
- C. **As a tool for progress monitoring:** The preparation of internal estimates involves listing out the various tasks/ activities, resources and other expenditures, therefore enabling the project team to determine the progress at various points and take corrective measures in case of deviations.
- D. **As a bargaining tool:** If the quoted price in the tender is higher than the internal estimate, the indenting organization can resort to bargaining.
- E. **As a market intelligence tool:** The formulation of internal estimate requires collection of historical data as well as assessment of prevailing market conditions (vendor base, hiring rates for experts, prices of commodities such as cement, land acquisition costs, etc.).
- F. **As a tool for evaluating alternative investments:** By calculating the likely expenditures on various alternative projects and comparing their rate of returns or net present values, organizations can prioritize projects in order of their financial attractiveness.
- G. **As a benchmarking tool:** An organization can compare the expenditure for an outsourced service with the cost of providing the same internally.

Methods for Preparing Internal Estimates

Broadly, there are different ways of arriving at internal estimates, namely:

1. **Comparison with analogues:** The estimate for a contract is arrived at by taking into consideration the expenditure incurred in similar or related contracts earlier. Suitable escalation factors must be applied, by using appropriate index. The limitation of this approach is that no two contracts are exactly the same, and hence comparison can lead to errors. The time gap between the analogues and the market/ technological/ regulatory or other changes in the intervening period may render the comparison meaningless.
2. **Parametric estimation:** This approach consists of breaking down the contract cost into its various components and making estimates for each of the components. An estimate for a consultancy contract can be prepared by considering the man-hours for the experts, the rentals for equipment (if any), the software license fees (if any), travel, lodging and boarding expenses, etc. The underlying assumption of this approach is that the cost components of a contract can be known with a certain degree of certainty, which may not always be true.
3. **Request for quotations (RfQs) from the known vendors:** Another method for estimation involves sending RfQs to known vendors. At least 3 quotations are desirable. However, vendors possess varying degrees of capabilities and this gets reflected in the form of widely differing quotations. Vendors often submit quotations in different formats and details, making comparison between them very difficult.

In practise, it is common to use a combination of the above methods to arrive at an internal estimate.

Characteristics of a good internal estimate

Internal estimate is prepared by taking into consideration the quantity, quality, schedule, resources to be employed, etc. The detailed parameters that determine the quality expected in performance of the contract need to be explicitly mentioned in the estimate and the purchase requisition. The internal estimate also lists out various assumptions and historical data, which should be verifiable from available documents. The cost drivers (factors that will impact the contract amounts to the highest extent) should be identified.

Comparing Organizational Procedures

Organizations differ widely in their approach and internal procedures for preparing estimates. In some organizations, the estimate is arrived at simply by taking the average of 2-3 quotations. In the Department of Defence of USA, regulations stipulate that for projects above certain threshold values, two estimates must be prepared—one by the concerned office and another Independent Cost Estimate (ICE). It is also a common practice in USA to quantitatively determine the uncertainties and probabilities associated with the estimates.

Procedure for Internal Estimates in OIL

Oil India Limited (OIL) has been following a well defined procedure for estimating the most likely values of works and services contracts. The various steps involved in awarding a contract (including the preparation of internal estimates) are described in the document titled "Policy for Award of Contract & Contracts Systems and Procedures" published in 2009. The detailed guidelines for preparing internal estimates were provided in a circular PLN-1-3/1-2011 dated 30.04.2009. For contracts with likely values less than the threshold amount of Rs. 25 lakhs, an estimate prepared by indenting department is acceptable. For contract with values likely to be above the threshold, an estimate prepared and vetted by a committee (comprising of members from indenting department, Finance, Planning and Contracts) is stipulated. The internal estimate must be prepared before finalizing the purchase requisition (PR). This ensures that all the necessary details of the services to be availed are known and incorporated in the PR. Details of the assumptions and data is desirable in the estimate, which is kept confidential till the bids are opened.

As per the norms prevailing in OIL, a +/- 10% variation between the bid amount and the internal estimate is allowable. A larger variation calls for examining the likely reasons and the price reasonableness of the bid. Accepting a lower bid is risky, since there is likelihood that quantity or quality may not as per the specifications. In such a case, the contract may run into difficulties at any stage during its performance. Likewise, the reasons for a higher bid amount need to be ascertained before awarding the contract.

Difficulties in Preparing Precise Internal Estimates

In OIL, there is an increasing trend towards tendering for knowledge-based services (specialized studies, consultancy services for complex projects, etc.). Preparing internal estimates for such services has some inherent difficulties. For example, the vendor base for such services may vary from lone, experienced individuals to large firms. A large variation in the bids can be expected when such diverse vendors participate in the tender. The expertise of consultants is difficult to verify, qualitatively or quantitatively. For example, a consultant in the area of hydraulic fracturing may

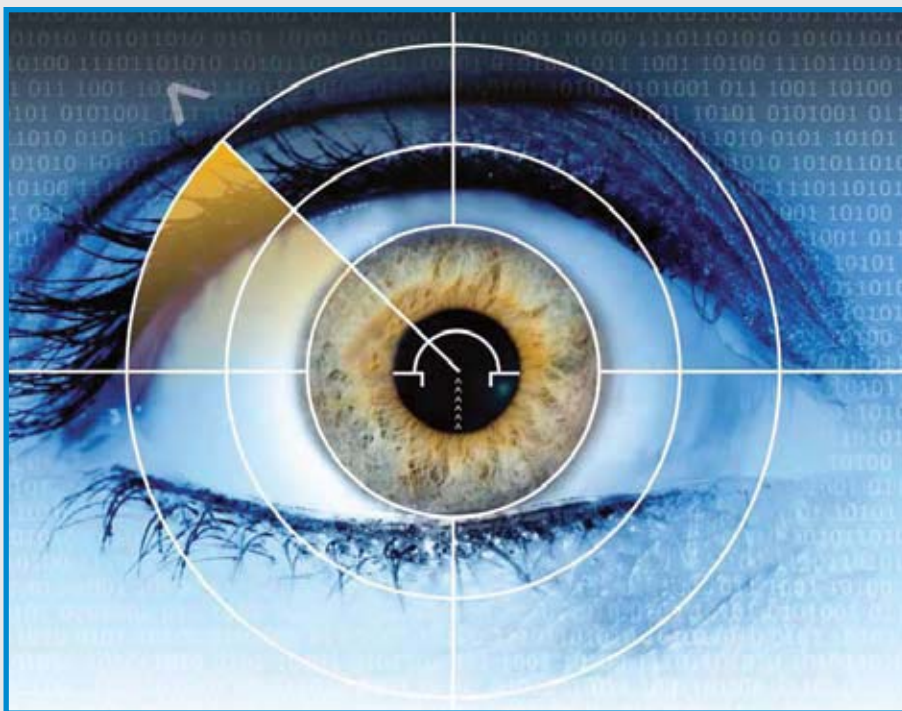
claim altogether 25 years of experience. As evidence, 15 years of field work, with dates of actual jobs carried out may be produced as evidence. For the remaining 10 years of experience, published papers with actual dates of publication may be provided as evidence. It becomes difficult to accept or reject this offer, unless there are parameters in the specifications that describe the quality and quantity of experience desired. Some vendors may include the period of training and academic courses provided or availed in the experience. The specifications must mention whether such experience will qualify or not. Moreover, while specifying the number of years of experience, it is important to mention whether that experience should pertain to recent projects, rather than in distant past. It is also important to mention whether the experience in the relevant area should be continuous or staggered.

In OIL, there is no centralized cell for preparing internal estimates. However, the members from Finance, Planning and Contracts get sufficient exposure to preparation of estimates. However, the committee member for the indenting department keep changing from one contract to another, and hence do not get sufficient experience in preparing estimates.

Although the tenders for consultancy services mainly involve hiring the experts for the duration of the contract, the performance of the contract may necessitate the use of other resources such as proprietary software, databases, laboratory or testing facilities or equipment, etc. Consultancy firms may outsource such items during bidding. In such cases, the task of preparing the internal estimates for consultancy services may become more complex.

Conclusions

It must be appreciated that preparation of estimates is a relative niche professional area which is not widely understood. Estimation is a skill that needs to be developed over the years; everyone is likely to commit errors in the initial years. Training in this area is important, and in India, presently expertise exists in the form of professionals in the finance field. However, estimation is a multi-disciplinary effort that requires the involvement of end-user, as well as other stakeholders in the project, apart from finance expert.



S. S. Rawat

Chemical Department

PREVENTIVE VIGILANCE AN EFFECTIVE TOOL OF GOOD GOVERNANCE

He is most free from Danger, who, even when safe, is on his guard – Publilius Syrus

The very common phrase goes that '**Prevention is better than cure**'. It is very easier to stop something happening in the first place than to repair the damage after it has happened. We should always try to keep a bad thing from happening than it is to fix the bad thing once it has happened. Something that we say which means it is better to stop something bad happening than it is to deal with it after it has happened. This phrase advises us to take preventive steps to keep us away from all sorts of dangers since this reduces the effort needed to deal with the effects of a danger. In the same way preventive vigilance means to follow the organizational procedures, rules and regulation together with effective monitoring. It is not the purpose of heed to wait for lapses to be committed and then try to conduct post mortem bearing high cost.

Prevention is the shield which saves mankind from many disasters, chaos and destruction. We must measure every step we take. A cure is a blessing,

but preventions are better than cure. A wise act of a cautious mind can stop us from stepping into something wrong or dangerous. Prevention makes one escape completely from dangers and difficulties. Cure is a solution for the suffering which has already engulfed him. Man can prevent himself from falling into bad habits. Preventions can be achieved by planning ahead. One should act beforehand towards certain issues, situations etc. rather than looking for its solution later on. In other words – 'Do only those things in life for which you don't have to rework'. This principle can be observed in our daily lives,

Bribery, Greed and other factors are source of all sorts of rampant corruption all over the world. If these malpractices had been nipped in the bud they wouldn't be occurring at all. We all are responsible for its rise and growth. The practice in some nations have become a standard, a norm or a tradition which has taken so many complex forms and has become so entangled

and assimilated in our lives that even though we talk against it we ourselves encourage these. Sometimes, it is the only way or a shortcut to a solution that we have to indulge in it. Scams and Scandals are the outcome of corruption and they have a high range of effect throughout the whole community as is evident in 2G Spectrum Scam of India and Oil and Gas Bribery Case (Panalpina) and various others are clear and cut of the outcome of ineffective or nonexistent measures of preventive vigilance.

Prevention implies 'to stop doing something'. Cure means 'to find a solution'. Man is prone to commit mistakes. Prevention is the shield which saves mankind from many disasters, chaos and destruction. Man can foresee the happenings of the future. He checks himself from doing anything wrong.

We must measure every step we take. Cure involves much more effort and pain than what would need to prevent a problem from affecting us. A cure is a blessing, but prevention is more than a blessing. It is better than cure. A wise act of cautious mind can check us from stepping into something wrong or dangerous. The act of right living makes everything possible. Living in the right sense means living judiciously, wisely and cautiously. Man has the knowledge of distinguishing between the right and the wrong, the good and the evil, the safe and the dangerous. He can judge them and escape from dangers and difficulties before they engulf him. Many fail to distinguish between them and find themselves trapped. Then they seek a cure. Prevention halts or obstructs the danger or evil etc, from the person before it overpowers him. It makes the person escape from it completely. Cure is a solution for the danger or evil which has already engulfed him. Hence, I would like to convey in strong word that prevention is always better than cure.

The process of strengthening an organizational Integrity System begins with a organizational dialogue followed by organizational action. Today the Public Sector Undertakings in the country plays a significant role in the economic as well as social development of the country. They are subject to public criticisms and criticisms in the press. Unlike the private commercial organization where individuals count more, in these public undertakings, the systems have to work more than individuals. Under such circumstances, there is a

need for a strong and dedicated vigilance organization in the PSUs with a set of stick rules to regulate the conduct of the workmen and executive employees of these undertakings.

Vigilance has to be looked upon as one of the essential components of management. If the vigilance set up is effective in an organization, it will certainly ensure the functioning of the other segment like Contract, Purchase, Sales, Human Resource, Technical and Finance in a very effective and in efficient way. Vigilance has therefore to be given a rightful place in the management. Though the work of 'VIGILANCE' is liked neither by an honest officer nor a dishonest officer, yet its absence will be harmful to the organization. It is like a Bitter Pill. For the good health of the organization, the Bitter pill has to be administered. Like a Bitter Pill, the administration of vigilance will taste sour. But in the long run, it will be in the good health of an organization.

The objective of vigilance is to ensure that the management gets the maximum out of its various transactions. In the field of purchases, it should get the quality product at competitive rates. In the field of sales, it should get the maximum realization for its products at the negligible selling cost. In the field of Human Resource, it recruits the best talented people and keeps the morale of the people high. Likewise, in anyone of its transactions, it should Endeavour to get the best. Unlike in private organizations (mostly individual concerns) where individuals whose interest are totally centered round on the profitable functioning of the organization, in public sector organizations it is rather difficult to inculcate culture without a vigilance set up. The presence of a vigilance set up will enable the management to enable the presence of that culture.

- More attention is required towards policy preparation
- More regulatory impact required in a complex industrial environment
- Integration of effective Risk Management and Business Continuity Planning
- Building the public sector landscape of the future
- Design of efficient processes
- Manage the complexity



Vigilance is not something external. It should be accepted as an essential part of management. Vigilance connotes watchfulness. It is not the purpose of vigilance to wait for lapses to be committed and then try to conduct post mortem. What is more important than punitive vigilance is preventive vigilance. In short, management should be interested in preventive vigilance measures. If adequate attention is paid to preventive vigilance side, maximum vigilance cases will not arise.

Preventive vigilance calls for constant review of rules, procedures and practices which shrink scope for corruption in the following segments.

- Contract Management
- Material & Purchase Management
- Sales Management
- Human Resource Management
- Inventory Management
- Civil Works Management
- Finance Management

Preventive vigilance is nothing but adoption of a package of measures to improve systems / procedures to reduce / eliminate corruption. Purpose of Preventive Vigilance is to bring about a higher order of morality, rationality and watchfulness in public service.

Measures for Preventive Vigilance

- Study of working culture of the organization
- Study of Sensitive and corruption prone areas.
- Simplification of rules/procedures having loopholes.
- Define duties/responsibilities of an officer and workmen

- Locate sensitive spots.
- Surprise inspections.
- Detection of failures in quality or speed of work.
- Reduce discretionary areas.

The above are some of the general aspects of preventive vigilance measures that could be adopted in our organization. But these will vary depending upon the type of activity, size of the department, the areas of operation etc. However, the point to be borne in mind is that preventive vigilance measures help the core management to get optimum results from the different activities. It is also necessary to have close liaison with various investigation agencies on a periodical basis so that the Vigilance Organization has the advantage of having information from external & internal front also.

Detective Vigilance, Punitive Vigilance, Corrective Vigilance, Predictive Vigilance, Preventive Vigilance & Proactive Vigilance are the various Vigilance mechanisms used in Public Sector Undertakings to enforce the rules and procedures time to time. But out of these the best tool of good governance is Preventive Vigilance; reason being prevention is always better than cure.

It is being strongly felt by me that all these procedures could work well only if there is a total commitment and honesty on our part in implementing them. Let we therefore dedicate ourselves to be honest to implement the preventive vigilance procedures to make our nation & organizational function in a very effective and in efficient way so that we could reach the commanding heights in the economic and social development of the nation.

Three elements of Preventive Vigilance are the Eyes, the Ears & finally justification of Brain

***Character is like a tree and reputation like its shadow.
The shadow is what we think of it; the tree is the real thing
– Abraham Lincoln***

**Pulak Jyoti Sarma**

Head (Pipeline Department)

USING PIPELINE TECHNOLOGY AS AN ECONOMIC AND ECOFRIENDLY MODE OF TRANSPORTATION BEYOND HYDROCARBON INDUSTRY

ABSTRACT

Pipeline is an established mode of transportation in the hydrocarbon industry worldwide for decades. Pipeline has certain critical advantages over the other modes of transport for supply of petroleum products. Because of these inherent advantages network of under-ground pipelines in the country has grown in a big way- both onshore and offshore, in the last few decades.

While pipeline transportation has remained confined mostly to hydrocarbon sector and water supply networks in cities and towns in India, it plays an important role in the matrix of transportation modes in the western industrialized countries, especially in the transportation of certain bulk materials.

Slurry pipeline and capsule pipeline are emerging technologies for long-distance transportation of minerals and critical bulk material.

This calls for drawing a plan for commercial use of capsule pipeline technology in India through R & D efforts for economic and ecological benefit for the country.

HYDROCARBON INDUSTRY AND PIPELINE

Pipeline is an established mode of transportation in the hydrocarbon industry worldwide for decades. Pipelines are used to transport Crude Oil, Refined Petroleum Products (HSD, SKO, MS, ATF, Naphtha, Black Oil, FO, LDO), Petrochemical Products, Chemicals, LPG, Natural Gas, any other Gas. The other Modes of Transportation of Petroleum Products are Rail, Road and Water Carriers.

INDIAN SCENARIO

As is all over the world, in India also pipelines are the safest and most efficient means of transporting crude oil from producing fields to refineries and processing



plants and of distributing petroleum products and gas to the consumers. Pipelines between refineries and major urban centres are replacing other modes of transportation.

Modes of hydrocarbon transportation in India (% share) are typically as per below:

Pipelines	Road Tankers	Rail Tankers	Water Carriers
32%	32%	26%	10%

Presently the pipeline network in India transporting crude oil, petroleum products and gas is around 50000 km and there is further requirement to expand the hydrocarbon pipeline network in the country. With fast economic progress India's energy requirement is also increasing at a galloping rate. As per the World Energy Outlook 2011, IEA has projected India's energy demand in 2035 at 1,464 MMtoe. The respective shares of coal, oil and natural gas are 42%, 24% and 11%, respectively. Nuclear, hydro and renewable sources put together would account for just 7%.

Therefore, though Govt has ambitious plan for reducing dependence on fossil fuels and increase use of renewable resources particularly for power generation are fossil fuels are expected to continue with major share in fuelling India's economic growth. Creating safe and efficient transport network for liquid and gaseous hydrocarbons is an essential prerequisite for meeting the energy demand. This can only be achieved by creating network of pipelines.

Therefore, the Indian Government's 'India Hydrocarbon Vision 2025' for the oil & gas industry has created more onshore and offshore pipeline projects, both national and transnational.

ADVANTAGES OF PIPELINE TRANSPORTATION

The advantages of the pipelines over the other modes of transport for supply of petroleum products are listed below:

- It is a safe and reliable mode of transport system.
- It is an economical and high reliable mode of transport system particularly to the sensitive and strategic areas.
- It provides a long term infrastructural option.
- The difficulties in handling large volume of products by rail from one loading point is reduced.

- Minimum transit loss. The transit losses in rail/road transportation is as high as 0.3 to 0.5% of throughput, while in case of pipeline, it ranges from 0.05 to 0.10% of the throughput which gives added advantage to pipelines.
- Multi-product transportation
- In pipeline containers remain static whereas the cargo is moved. In case of other modes the container moves along with the products and returns empty carrying the dead load.
- Pipeline reduces road congestion and road damages.
- The pipeline is hardly effected by natural calamities like flood, earthquake etc.
- Land cost is minimum because once pipeline is buried the land can be restored back for use.
- Energy consumed per unit distance per unit weight of products moved by pipelines is comparatively much less than railways.
- Environmental impact of pipeline is limited mainly to the period of laying the line and operation. During operation there may be deterioration in the air quality owing to running of the pumps and emissions of hydrocarbon which occur during storage and dispatch activities but of little effect on the environment

Therefore, the environmental impact of pipelines is relatively insignificant as compared to other modes of transportation system.

EMISSION (environmental impact calculation of transport)

Emission factors (gm per ton and km)					
Transport Mode Emission	Truck	Train	Aircraft	Inland shipping	Sea shipping
CO ₂	147.3	32.2	903	35.4	17.5
NO _x	1.21	0.12	4.24	0.61	0.42

Carbon dioxide emission of pipeline transport is comparable with the carbon dioxide emission of train transport and sea-shipping and which is much lower than the carbon dioxide emission of other modes of transport. Moreover, the nitrogen oxide and volatile organic compounds emission are also lower compared to other modes of transport.

TYPICAL PIPELINE NETWORK IN HYDROCARBON INDUSTRY

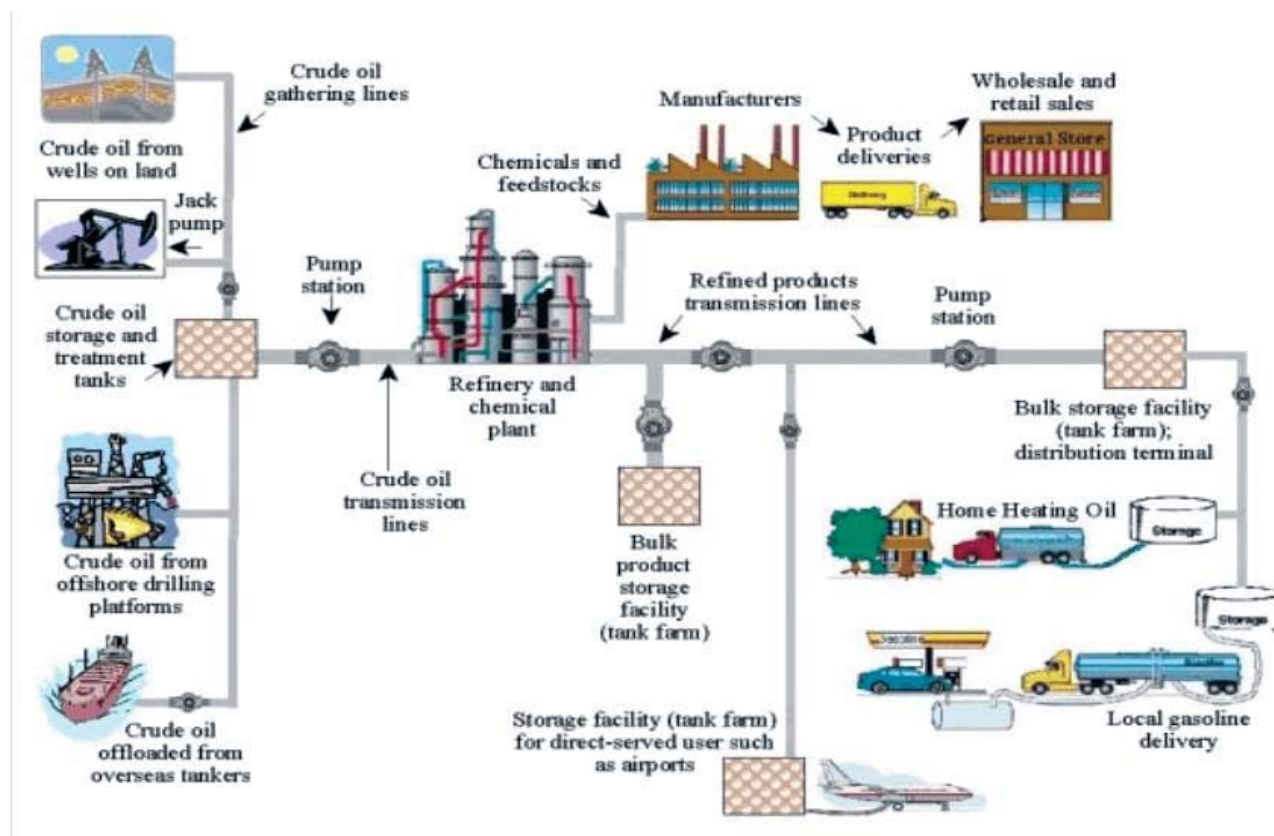


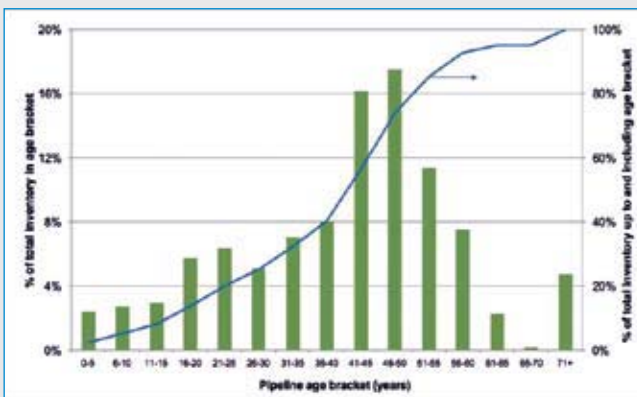
Table 7: Codes and Standards for Pipeline Design

Codes/Standards	Description
ASME B31.8	Gas Transportation and Distribution Piping Systems
ASME B31.4	Pipeline Transportation Systems for Liquid Hydrocarbons and other Liquids
OISD-141	Design and Construction Requirements for Cross-Country Hydrocarbon Pipelines
OISD-214	Cross-Country LPG Pipelines
OISD-226	Natural Gas Transmission Pipelines and City Gas Distribution Networks
API 5L / ISO 3183	Specification for Line Pipe
API RP1102	Recommended practice for Rail and Highway crossings
API 1104	Standard for Welding Pipeline and Related Facilities
API 6D / ISO 14313	Pipeline Valves
ASME B16.2	Metallic Gaskets for Pipe Flanges – Ring Joint, Spiral Wound and Jacketed
ASME B16.5	Pipe Flanges and Flange Fittings
ASME B16.9	Factory – Made Wrought Steel Butt welding Fittings
DNV OS-F101	Submarine Pipeline Systems
DNV'81	Rules for Submarine Pipeline System
DNV RP B401/F103	Cathodic Protection Design
DNV RP E305/F109	On-bottom Stability Design for Submarine Pipelines
DNV RP F105	Free Spanning Pipelines
Other References	Applicable Standards / Specs of ASME, API, NACE, MSS, BS, DIN and IP-6



LIFE OF PIPELINE AND SAFETY

- Designed life of a pipeline is most commonly 30 years
- Pipeline design, construction and operation with compliance to the codes make them extra safe.
- Furthermore, maintenance requirements of a pipeline system is quite low as the pumps and compressors are the only moving parts of the pipeline system.
- A well constructed and protected pipeline, with proper maintenance remains in good health and fully operational well beyond its designed life. Pipelines can be rehabilitated and kept in operation for years together till the operation remains economical. The following figure shows age if pipeline in operation across different countries in the world :-



DISADVANTAGES OF PIPELINE TRANSPORTATION

- Pipelines as a mode of transport are put at a financial disadvantage by the high capital investment necessary.
- An important drawback of a pipeline system is its inflexibility; all the input (dispatch) and exit (terminal) points are fixed. Therefore, for making a pipeline system more flexible road tankers and rail transport are to be utilized from the terminal point.
- The system is also inflexible because a pipeline has a limited capacity. Transporting extra volume through the pipeline when the capacity is saturated is impossible.
- Though the width of pipeline "Right-of-Way"/'Right-of-Use' is much less as compared to road and

rail track, the land cannot be used for any other construction.

ECONOMICS OF SCALE (increasing return to scale) IN OIL PIPELINE TRANSPORT.

Simple production function for a section of cross-country pipeline is the relationship between its input and output functions. This is expressed by the following equation--

$$Q = CH^{0.37} D^{1.73}$$

where

Inputs are -- i) H the Horsepower input for pumping the quantity Q,

ii) D the pipeline diameter

Output is -- Q the volume pumped through the pipeline (Throughput),

C the constant of proportionality.

This equation suggests that if both the inputs are increased by 1% the volume moved through the pipeline will increase by 2.1% (the sum of the two exponents $0.37 + 1.73 = 2.1$ is referred to as the degree of economics of scale). Because the output increases by a larger proportion than the increase in inputs this production function indicates that there will be economics of scale (increasing return to scale) in oil pipeline transport

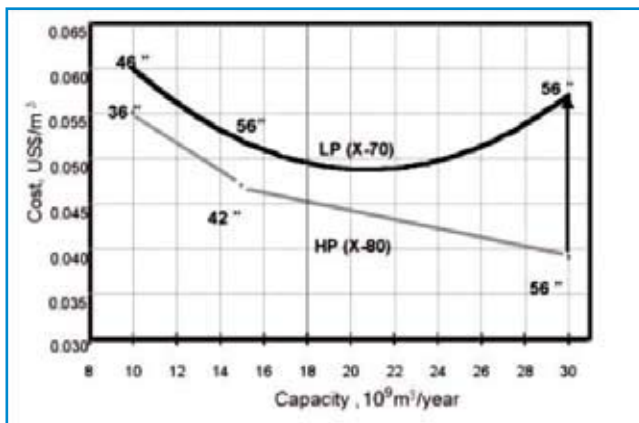
Because per unit cost of Horsepower and pipeline diameter is roughly constant, oil pipelines exhibit declining average cost. If H & D are increased by 1% total cost will increase by about 1% whereas output Q will increase by about 2.1%. Hence economics of scale also translates into decreasing average cost for the production process i.e. the pumping operation.

Economics of scale (increasing return to scale) in gas pipeline transport

- Being a cleaner fuel as there is a gradual shift to gas from other forms worldwide and India is also following the suit. Cost reduction of gas has become imperative and hence transportation economics has an important role.
- New technologies have been developed, including automatic laying methods, the use of high tensile steels and high pressure transport which are beginning to contribute towards cost reduction.

- High pressure (HP) technology is more economic than conventional technology for an annual throughput capacity of more than 10 10⁹ m³, and its competitiveness improves linearly with capacity. Cost savings for a transmission system of 5,000 km with a capacity of 15 to 30 10⁹ m³/ year, are estimated at 10% to 30%.
- By increasing the operating pressure two benefits can be expected. With the same cross section, the transport capacity increases while the friction losses, referred to unit of mass transported, are reduced.

Long distance transportation cost for large gas quantities (Example) :-



In this example it has been shown that very substantial cost reductions can result from the choice of a high pressure transport option, using an X-80 steel instead of an X-70 steel, at a lower pressure. The future use of very high strength steel API 5L X-100 could permit further reduction of transportation cost, by cutting CAPEX and OPEX.

PIPELINE TRANSPORTATION BEYOND HYDROCARBON INDUSTRY

The most common pipelines other than in hydrocarbon industry are Water and sewage pipelines. The water pipelines transport the water from the producing areas or from a natural source towards the customers.

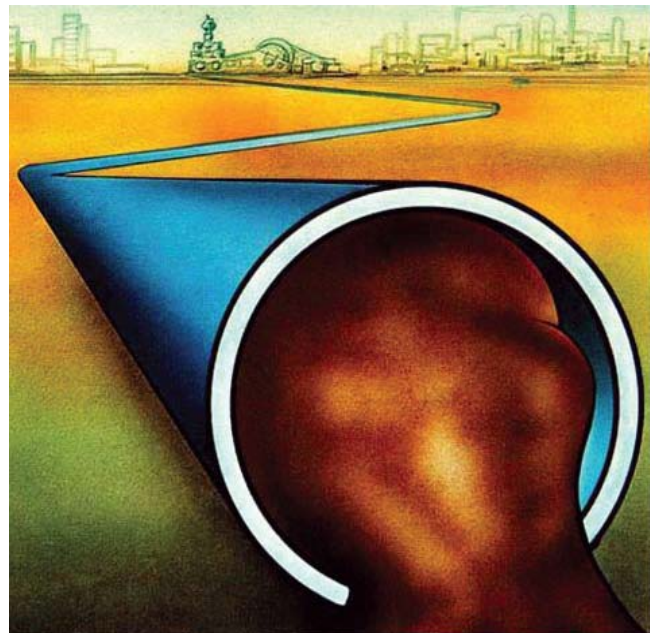
After usage or consumption, the water is transported via the sewage pipeline network to purifying facilities or in the worst case scenario directly dumped in a river.

Water and sewage pipelines are constructed because of their unique utility for the purpose rather than any

other consideration and are governed by codes and standards.

Due to the success story of pipelines in hydrocarbon industry, Slurry pipeline and capsule pipeline are emerging as technologies for long-distance transportation of minerals and critical bulk material. In view of their special characteristics – safety, reliability and environment friendly nature, slurry and capsule pipelines are considered to be crucially important technologies in USA.

Slurry Pipeline Transportation



A Slurry Pipeline

Items transported through Slurry pipelines

- Ore, minerals and tailings
- lead
- zinc
- phosphate
- limestone
- iron ore
- copper
- red mud
- bauxite
- kaolin
- gold
- sand and others



- A slurry pipeline transports slurry –e.g. the mixture of solid particles and a liquid, usually water.
- Traditionally, a slurry pipeline is used in the mining industry for transporting the mineral concentrate.
- Slurry pipelines have advantages similar to hydrocarbon pipelines over other modes of transport and are economically more profitable and environmentally friendly than railroad transport.
- Like hydrocarbon pipelines, slurry pipelines are also governed by codes and standards.

Some Long Distance Slurry Pipelines

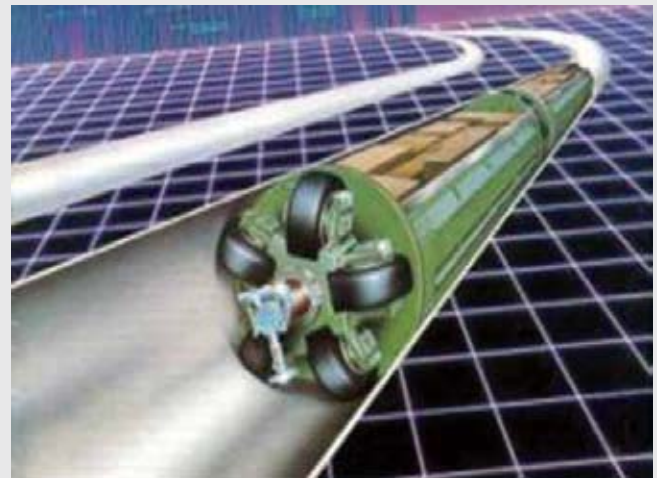
- MMX, Iron Ore Slurry Pipeline, Brasil, 550 kms
- Da Hong Shan, Iron Ore Slurry Pipeline, China, 171 kms
- Paragominas, Bauxite Slurry Pipeline, Brasil, 244 kms
- Samarco, Iron Ore Slurry Pipeline, Brasil, 396 kms
- Simplot, Phosphate Pipeline, USA, 100 kms
- New Zealand Steel, Ironsand Concentrate Pipeline, New Zealand, 18 km
- Los Pelambres, Copper Concentrate Pipeline, Chile, 120 km
- Minera Alumbrera, Copper Concentrate Pipeline, Argentina, 310 km
- Jianshan, Iron Ore Slurry Pipeline, China, 100 km
- Minera Dona Inés Collahuasi, Copper Concentrate Pipeline, Chile, 203 km
- Freeport, Grasberg Mine, Copper Concentrate Pipeline, Irian Jaya/Indonesia, 120 km
- Batu Hijau, Copper Concentrate Pipeline, Indonesia, 18 km
- Hy-Grade Pellets, Iron Ore Slurry Pipeline, India, 268 km

Capsule Pipeline Transportation

Capsule pipelines transport freight in capsules propelled by a fluid moving through a pipeline. When the fluid is air or another gas, the technology is called pneumatic capsule pipeline (PCP), and, when water or another liquid is used, it is termed hydraulic capsule pipeline (HCP).

Capsule pipelines are laid underground and are designed to transport hollow cylindrical containers with various contents (capsules). Potential applications include carrying items such as mail (letters and parcels), minerals such as coal, agricultural products such as rice, wheat etc, packaged products (in boxes or bags) and waste (household garbage or industrial waste).

According to Freight Pipeline Company, an American R&D organisation, a 900 mm diameter PCP can carry approximately 25 tonnes of cargo at a speed of about 40 km/h. HCPs are much slower, able to travel at just 7 to 11 km/h, but have a greater volume and weight capacity and are more energy-efficient.



Capsule pipeline

The idea of using small capsules inside a pipeline to transport freight is not new. The earliest proposal for moving goods in pipelines appears to be by George Medhurst in about 1810. A practical application was created by Latimer Clark in 1856 with a pneumatic tube connecting the central station of the Electric Telegraph Company to the London Stock Exchange. The first wheeled capsules made their appearance in 1861 with a 30 inch pipe constructed by the Pneumatic Dispatch Company, UK.

A new era for wheeled capsules opened in the 1970's with the construction of two large diameter pipe systems with wheeled capsules. In the USA, Tubexpress Systems Inc built and tested a 1400 ft long 36 inch diameter pipe with 7 ft capsules.

In the USSR the Lilo-1 system could transport 25 tons of sand and gravel at a time. The system used a 2.1

Km long pipe of 1020 mm diameter within which six capsules formed a single train. Speeds of up to 50Km/hr were reported. A later system Lilo-2 used an 8Km pipe of 1.27m diameter to move 8 millions tons of gravel and sand per year.

The most successful applications of the technology have been in Japan. Sumitomo Metal Industries built a 3.2Km pipe of 1m diameter in 1980 to transport limestone to a cement plant, figure 3. The system transports over 2 million tonnes each year, and has reportedly achieved an operation rate in excess of 95%. This system is still in operation today

In 1997 the Florida Institute of Phosphate Research commissioned a demonstration project from Magplane Technology Inc for a pipeline capsule system using Linear Synchronous Motors for propulsion. The demonstration pipe was 275m in length and 610mm in diameter, each capsule could carry 300 Kg and achieved a peak speed of 18m/s[5]. The final report, March 2001, prepared by Magplane Technology claimed that preliminary economic studies had shown a satisfactory return on capital.

Following is excerpt from a study carried out by Jonathan Carter and Kevin Troyano-Cuturi, Department of Earth Science and Engineering, UK on the economics of a Capsule Pipelines for Aggregate Transport:

The researchers calculated the economic cost of moving aggregate by three different modes of transport that were being in used in the route for the commodity -- those being trucks, conveyors and rail, as well as for the capsule pipeline that had been proposed. The economic calculations for each transport mode and cost comparisons on different routes are outlined below:-

Example 1: 2Km in quarry system

The system carries 20 million tonnes per year and consists of a 1Km up-hill section followed by a 1Km down-hill section.

Transport Mode	Capital Cost (£M)	£/tonne	£/tonne-Km
Truck (32 tonne tipper)	----	1.276	0.638
Capsule Pipeline	2.2	0.034	0.017
Conveyor	3.0	0.038	0.019

Example 2: 36Km cross country route

The system carries 20 million tonnes per year and consists of 20Km of level travel, an 8Km up-hill section and an 8Km down-hill section. Trucks are considered to follow the existing road system for a distance of 58.4Km.

Transport Mode	Capital Cost (£M)	£/tonne	£/tonne-Km
Truck (32 tonne tipper)	----	6.86	0.118
Capsule Pipeline	32	0.53	0.015
Conveyor	54	0.64	0.018

Considered the economics for the capsule pipeline for an annual production rate of two million tonnes.

Example 3: 350Km haul over level ground

The system carries 20 million tonnes per year. It is assumed that the trucks can use a motorway for the whole journey.

Transport Mode	Capital Cost (£M)	£/tonne	£/tonne-Km
Truck (32 tonne tipper)	----	27.00	0.077
Capsule Pipeline	275	4.45	0.013
Conveyor	525	5.95	0.017
Rail	3850	6.30	0.018

The researchers concluded from the study that -- *if only the operational costs are considered then the capsule pipeline is always the most cost effective solution. However, in the case of trucks it had been assumed that there is no capital expenditure needed, whereas the capsule pipeline will need to recover those costs. In any situation where a conveyor is considered the best economic solution, then the capsule pipeline will be better as it has lower capital and operating costs. It was calculated that for an annual production of two million tonnes and a journey of 36 Km the capsule pipeline recovers its costs in seven years. From further study the researchers found it to be generally true that a capsule pipeline is able to recover its costs in a reasonable time. The shorter the journey, the lower the required production to reach break even. If a rail line already exists then it is almost impossible for the capsule pipeline to recover its costs. However, the*

costs of building a new rail line are so large that if it does not exist then the capsule pipeline is by far the best solution.

The potential advantages of capsule pipelines are reduced traffic congestion by taking freight traffic off road and running it underground thereby reducing road accidents and lessening pollution. The main disadvantage is the high cost of laying underground pipe networks.

Potential applications include carrying items such as mail (letters and parcels), minerals, for example coal, agricultural products, for example wheat, packaged products (in boxes or bags), and waste (household garbage or industrial waste).

In a vast country like India with diverse geographical features and a huge population spread across the land mass as well as remote strategic locations owing to large international boundary, the technology of capsule pipeline may be gainfully utilized. This calls for increased R & D efforts for successful commercialization of the capsule pipeline technologies in our country. Pipeline technologies can be gainfully utilized for different economic purposes such as interconnecting water scarce areas with water abundant regions, moving

at least part of the enormous amount of foodgrains freighted across the length and breadth of this huge country, linking up strategically important regions and remote locations with all weather supply lines by constructing multiproduct capsule pipelines.

CONCLUSION

Shifting part of the load of surface transportation to underground pipeline will not only result in economic benefit for the country but will also be helpful in meeting India's commitment to reducing carbon emission in a world that is becoming more and more concerned with the impact of transportation on the environment and the consequences of climate change.

References:-

- Asia Pipeline Feature--- Indian Pipelines Pipeline Perspective on India – 2010
- THE CHALLENGES OF FURTHER COST REDUCTIONS FOR NEW SUPPLY OPTIONS (PIPELINE, LNG, GTL) 22nd World Gas Conference 1-5 June 2003, Tokyo, Japan
- HPCL Website article – Pipeline basics
- Internet data on slurry and capsule pipeline



**Anwesh Kumar Das**Senior Engineer
(Production Gas Department)

MY RENDEZVOUS WITH VIGILANCE

These days we read a lot about corruption, scams, vigilance etc. in newspapers. And after joining OIL, one is always kept on his toes, as every other day one gets an email about any MTDC workshop where you will be sensitized about what not to do, and if anything really to do, then how to do. Things were different a few years ago only, back then when I was a kid. I first heard the word 'vigilance' in a school quiz, though I could not make out what vigilance is all about, until life introduced it to me in its own way. My trysts with vigilance started neither from any vocabulary assignment in school nor from a single day workshop in OIL. It started somewhere in between.

Disclaimer: All the characters and incidents in this article are real. Resemblance to any fictitious person, personal experience or any story read somewhere is purely coincidental. Neither Yours truly, nor the Souvenir Committee or the publisher intend to outrage, insult, wound or hurt any kind of sentiments, beliefs or feelings of any person(s) or class or community.

The Vigilance people will be somewhere around:

It was way back in summer of 2003. I, along with a senior, had a flight to board from Kolkata airport. At the

"luggage check in", we were stopped by two Airlines Ground Staff. As we were carrying extra luggage, around 10 kg more than what was allowed, they asked us to pay fine of Rs. 1500/-, failing which we would not be allowed to fly. We tried to convince them that we did not have that much cash with us and none of us had ATM then. But they won't hear anything from us. Suddenly, after much nagging, one of them asked, "Ok, tell me how much cash, do you have, right now?" We counted unto the exact change and said, "Some 340 bucks". "Ok, give us Rs. 300." We were too happy to follow the instructions. "Not here! The Vigilance people will be somewhere around. Just hand the money while pretending to take your Cabin Luggage sticker from us." By that time we had become pawn in their hands.

Kya dekh raha hai? Vigilance hai kya?:

In March 2009, my Uncle was diagnosed with throat cancer. Those days, I was staying at Pune, so I got him admitted in Tata Memorial Hospital, Mumbai. Tata Memorial Hospital is one of the renowned hospitals in India for cancer treatment, and at any time of the year there will be a long queue outside every Doctor's cabin. So much is the rush that sometime, it may take



weeks to get a doctor's appointment. One day in the hospital lavatory, I found two people at a dark corner, and one of them, from whose uniform I recognized him as an assistant in that hospital, seemed to me like was whispering to the other person, "If you pay me 100 bucks, the doctor's appointment will be on today itself, else stand in the queue for the whole week.". Like any other curious Indian, I poked in to find out what was going on there. The man just stared at me and started yelling at me, "Kya dekh raha hai? Vigilance hai kya? Get lost!" I lost no time in getting lost.

He is vigilant enough:

A few days ago, I was chatting with a childhood friend of mine over skype. He is working these days with a hotel in Oman. So, after some banter and leg pulling, I said, "Lucky you to get a six figure salary in service business." Prompt came his reply, "No, dude. All of it does not come as salary. Infact, salary contribute a little of my total earning." I said, "Then what's doing wonder for you, TIP, huh?" He continued, "Nope. Actually, it's the commission business. Every month we would come to Dubai for buying our hotel's monthly stocks like wine, groceries, housekeeping stuffs etc. Now, we have an agreement with some of the parties. They just take care

of us, as we make sure to buy from them every time." I interrupted, "Isn't that illegal? What if your manager comes to know?" He waived off my queries, "Are, it's my manager who has done the arrangements. The lion's share goes to him. We divide the rest amongst us. And he is vigilant and influential enough to stop any report from reaching to the hotel owner. If anybody does, the next moment he will be shown the door on 'disciplinary' ground. And you don't want to lose your job in an unknown country, right?"

As he was narrating, I was lost into thought that the manager, in his initial days, would have been a greedy coward like those airport officials. Then with time he might have become a belligerent bully like that hospital staff. Finally, he turned into an 'alert' authority to run a system on his own. These, days when we read about scams that involve not only our political leaders, but also other big shots whom we have grown up idolizing, one just wonder in despair that whether in our hours of hurry, cowardice, compromise just to avoid a confrontation we are building a Frankenstein every moment.

"Justice does not help those who slumber but helps only those who are vigilant"
- M. K. Gandhi

During Historic civil wars, when troops returned without casualties, writing was put up so all can see which read "O Killed". From here we get the expression "O.K." which means all is good.

Did You Know ?

It is impossible to sneeze with your eyes open.

Statistically, people are more afraid of spiders than they are of dying.

All Polar Bears are left-handed.

Crocodiles cannot stick out their tongue.



Ramesh Maharaj
Chief Manager (Vigilance)

TEMPTATION GALORE

As a pre-adolescent child when I moved to small town from village, numerous things fascinated me. Growing into adolescence, the fascinations and temptations grew manifold. Bollywood movies were one such fascination that generally characterized to have impacted many people in their early lives. Many times in real life, murders have been committed after watching movies and copying the plot. Always vowed & acclaimed... what a decent life the villains led all through the storyboard... luxurious car, enormous wealth, power and dominance. Who cares for the end??? After all, everybody have to perish sooner or later. Many a times, we used to discuss with chums comprising of guys from different backgrounds...all had varied opinions about the pros & cons of villain life of movies.

But before going to bed at night, my Grandma always used to tell stories full of moral values and ethics. Religious stories carved out from Ramayana & Mahabharata was regular ritual at home. Finally, before closing eyes for final sleep, the gossips of day's topic with pals used to haunt in mind. After deep analysis and dissection, the conclusion was drawn for the Hero's side. It was well thought self-decision based

on family teachings and inculcated values. The power of fables, now I realized, how much it had impacted in shaping the future. In fact, one should never overlook negative thoughts or action merely because they are small; however small a spark may be, it can burn down a haystack as big as a mountain. But Alas! Now these days, stories exist only for entertainment value. Parents rely more on rules, coercion, and incentive to coax good behavior from their children. Absence of extended family around has also deprived the children from generational learning.

Few of friends during college days resorted to unfair means and attempted shortcut to success based on their argument that electricity passes through shortest path i.e. the path of least resistance. But they failed miserably as their success was short-lived. Success, as they learnt hard way, has no shortcuts. Life is full of distractions and temptations at every step and stage. Remember the famous TV advt - 'his shirt is brighter and whiter than mine'. Modify this to suit new age... 'his mobile is bigger than mine'. There was also one advertisement beamed on TV regularly in which a guy having black & white mobile handset had to run far off from his friends to attend to a call. Such ads provoke the



unwanted materialistic desire which leads him to wrong path. Value conflicts and ethical dilemma frequently arise in daily lives of people. Temptations come in many forms and we are all tempted. But ethical learning should provide the skill to identify such conflicts and instill motivation for solving them in best interest.

We as a society have crippled the honest behavior right from the school level. Prizes are given to good grades but no recognition to honest student even if grades are secured by resorting to unfair means. A celebrity, MP or MLA is generally our chief guest in schools but never a good policeman or an honest officer. We make our kids believe that power & influence is more important than integrity. By contrast, in Japan, honest student is rewarded in public function.

Corruption has reached its peak and the only way it can move is to go down. It has started to effect social and institutional fabric of our country. Enough is enough, we need to have two-pronged strategy aimed at increasing the benefits of being honest and the cost of being corrupt. It's high time we all put the little effort and free the nation from this menace. What India needs is just a small contribution from everyone to keep away the corruption, just like an ocean is made up by tiny drops of water combined, India needs to combine its huge workforce towards a revolution. There is ray of hope and light at the end of tunnel. New breed of dynamic leaders emerging on the scene and bevy of young voters will definitely bring about the change. India is bound to regain its past glory...together we CAN.

5 Reasons to Walk Away from **Temptation**

- 1) The actual pleasure is always a let down from your fantasy.
- 2) The actual trouble is always worse than your worst **nightmare**.
- 3) Don't trade a moment of pleasure for a lifetime of **pain**.
- 4) Don't trade a comfortable home for an earthly **hell**.
- 5) Don't hurt the only one who truly loves you in order to please a **fake** lover.

**Tridiv Hazarika**

Senior Manager (PR)

WHEN NOBODY IS MORE EQUAL THAN OTHERS!

The fortunes of an organisation always depend on the collective zeal of its Human Resources. Somehow, our society has always laid great emphasis on individual brilliance. True, a great leader can bring about unprecedented change in an organisation on several fronts. But in the long run it is the cultural aspects of an organisation that takes over. The system driven organisations have always managed to survive through rough weather, when the chips are down.

There are different kinds of business entities. For example, Industries operating in sectors like high tech research needs employees with superior IQs and impeccable academic record. In other industry, like the Public Sector OIL Companies, you have a great mix of unskilled, semi skilled, skilled to professionals from diverse backgrounds like Geo Science, Engineering, Business Administration, Finance, Corporate Communications, Social Work, Medicine, Security Services, Research and Development, well the list goes on.

This is indeed a very complex mix of Human Resources that has to deal with different levels of intelligence, educational back ground, aspiration levels and socio economic backgrounds. The challenge in such scenario is to build the inherent distinct corporate culture of the Company that can help in creating a sense of “we are a family” so that all these disparate group of employees like wagons in a locomotive can hold onto to each other firmly and follow the engine (read corporate management) in perfect harmony.

Extending this analogy of a Train and a corporate entity,

Extending this analogy of a Train and a corporate entity, we can relate the role of Vigilance officers to that of a Train Ticket Collector (TTC), who ensures that everybody travels with legitimate tickets and occupies his or her designated seats in the specific wagon.



we can relate the role of Vigilance officers to that of a Train Ticket Collector (TTC), who ensures that everybody travels with legitimate tickets and occupies his or her designated seats in the specific wagon. Of course the TTC has to deal firmly with ticketless passengers who are not authorised to board the train or discipline a passenger who misbehaves with his fellow passengers or in some cases, catch hold of errant passengers who pulls the chain to display false bravado and halts the train without any valid reason. For those law abiding passengers, the TTC is always a good friend, helping them enjoy their journey without any hassle.

But if the fundamental issues are in order, the role and responsibility of the TTC becomes relatively easy. For example, if the passengers by and large are law abiding and there is a strong cultural impulse for people of a nation to conform to set rules, the chances of finding few notorious elements will be very less. But for such a scenario to happen a lot of other factors must also be in place which help the citizens to conform to expected behaviour patterns.

Let us take our own Company to illustrate this aspect. When an employee joins the Company, possibly each new employee ardently wants to put forward his or her best foot forward as he or she enters the new working environment. The trainee employee is bustling with energy and enthusiasm, wanting to excel in his or her given tasks and draw the attention of the superiors for all right reasons. Many a times, a Company loses the employee in the induction and training period itself. Why does this happen? Well for a highly heterogeneous company like ours with a great mix of people and disciplines, we have created our own sub cultures within our silos. In some areas, the new recruits are provided with just about the right environment to shed his or her preconceived notions or apprehensions and become an integral part of the new corporate family with ease. In some areas, this process could be termed as a baptism by fire, where he or she is literally thrown in to the deep waters of the lake and the sheer survival instincts will eventually push him or her to learn to swim. Well these are different approaches of initiating a new recruit into the organisation. Sometimes it works and at times, it doesn't.

The TTC can play a definite creative role at this juncture.

Besides checking for valid tickets, he can also have a check if the process of obtaining a ticket in itself is the biggest challenge. As for a new recruit, he or she makes new friends, visits other departments and develops an understanding of his or her own from what the eye observes and the ear hears. Great organisations like Google or Apple are not merely about attractive remuneration package alone. In fact, it is the working environment, basic hygiene issues that makes these organisations a great place to work for. So when a new recruit has to struggle to get a decent office space to operate from, when he or she observes that there is a huge difference in basic infrastructure that employees have access to in different departments, it gives wrong and confusing signals to these new recruits.

I believe that for a Navratna PSU like ours with a legacy that traverses three centuries and a rich culture that we have inherited from our founding fathers, we must be able to present a sense of equality to every employee, especially the new recruits as they are full of energy and also most impressionable. We need to seriously introspect why we have allowed these basic differences to creep into our system. The same holds true for more complex issues like career progression and performance management systems. If a large number of employees start perceiving these aspects with a lot of discontentment, then the in the long run, the wagons will fail to be in alignment to the engine, creating a possibility of disastrous consequences.

In recent years, a lot of system based change has been implemented very successfully by Team Vigilance in OIL

This is where I believe that Vigilance as a function can encompass a much bigger role in continuously assessing the working environment, whether it is able to provide a level playing ground for each employee to discharge his or her duties. In recent years, a lot of system based change has been implemented very successfully by Team Vigilance in OIL, where the emphasis is on preventive vigilance, ensuring that systems become full proof and in a way, negates unintended errors on the part of the employee on vital areas in the challenging domain of contracts and purchase related processes.

The biggest threat to an organisation doesn't come only from employees that commit errors of judgment while working due to lack of foresight or unintended overlooking of laid down norms, but when capable performers feel let down by the system and they tend to lose a large part of themselves, their spirit, their enthusiasm, their innovative mindsets and in the long run the Organisation tends to lose more than anybody else. These are the people who never required to be constantly supervised to complete their assignments. They always take pride in doing much more than what perhaps the Organisation expects from them.

I have always believed that eventually is the mental framework of the individual employee that impacts his or her performance. A motivated employee will also remain a great asset to the Organisation. It always has been the need of the hour to devise ways and means to inspire and motivate all categories of employees across the organization. Many a times, career progression or very simply put, a well designed promotion policy is perceived as a key instrument to recognise performers and thereby motivate them to sustain their performance. But the challenge is to full-proof such systems so as to ensure that a deserving employee is not overlooked. A self motivated and performing employee is too precious an asset for a Company to allow him or her develop a perception that he or she has been wronged by otherwise a well meaning HRD policy that somehow fails to address such critical issues. Such perception amongst employees needs to be laid to rest in order to prevent long term detrimental implications

While, eventually everything boils down to the systems and processes, the end- results will never be met, if the human angle or should I say, the heart of the matter is ignored by the head. This is where a progressive organisation needs to conduct frequent organisational

health study to plug such policy loopholes and ensure that every employee is assured that he or she will get a level playing ground to perform in the organisation.

OIL undoubtedly always stood out as a caring organisation Company that provides an environment where colleagues become part of family; where talent is allowed to blossom; where new ideas are encouraged. We are once again going through a process of change through the UDAAN Project. We are hoping for visible change on all fronts. I am sure while bringing about this

This is where a progressive organisation needs to conduct frequent organisational health study to plug such policy loopholes

new transformation in the way we do our business, we will be laying a great emphasis on talent management, ensuring that more than anything else, every employee feels that nobody is more equal than him or her as they give their best for the Organisation. Once these aspects are addressed with utmost priority, nobody can deny OIL her place of pride as one of India's leading PSUs, making a mark globally. As a people's Company, OIL's wellbeing implies the collective wellbeing of all her diverse stakeholders. And such huge commitments to fulfil the aspirations of the stakeholders can only be possible when each Oilindian remains inspired to contribute to the collective goal of helping OIL sustain its performance in these changing business environment. Yes, at the end of the day, it will always be the person, the human resource behind the machines that will make great things happen. We all need to be alert to these aspects that play a critical role in strengthening our beloved Organisation and in turn contribute our share towards nation building.

Honest differences are often a healthy sign of progress
Mahatama Gandhi



Dipankar Malla Baruah

Dy Chief Engineer,
Well Logging Department

THE IMPORTANCE OF BUSINESS ETHICS

Among the many factors that contribute towards making a company really a great one, Business Ethics is the most important. If we look at all the successful business houses today, the predominating common factor is the ethical business practices followed by most of them. No great company can be built if the ethical business ethics are not there in its culture. On the other hand, it does not take much time for a company to lose its reputation when it starts losing its credibility in terms of business ethics.

In short, Business Ethics can be defined as going beyond what is legal and doing what is right, even when no one is looking! So when we talk about unethical behavior in business, we are talking about actions that don't conform to the acceptable standards of business operations. In some cases it may be an individual within a business who is unethical in the course of his or her job, and other times we are talking about corporate culture, where the whole business is corrupt from the top down, with disastrous results for society. It is important to realize that what is unethical may not

always be illegal (though sometimes it is both). There are many instances where businesses act within the law, but their actions hurt society and are generally considered to be unethical.

It is the responsibility of managers of all businesses, small and large to act ethically to protect themselves and their business environments. Otherwise, it is a threat to their employees, customers and communities. A lack of business ethics endangers the future of a company, jeopardizes the public goodwill, devalue shareholder's money and can have many other negative effects on a business environment.

Unethical businesses can act as parasites, drawing resources of a company to turn into a profit but failing to reinvest in and develop the company or benefit the stakeholders. For example, a company might exploit its workers by offering low pay, knowing they have no other options in the region. The tea labors in the tea gardens of Assam is a glaring example of this. While this approach might secure short-term profits, the long-term effects are regional distaste for the company

and worker dissatisfaction, as well as high attrition rate if employees find other career options. A smarter approach might be to offer employees reasonable pay or assistance with career development, which helps improve the workforce while shoring up support for the company in the local business environment.

Other unethical actions also impact public goodwill in a business environment. For example, if the company management is found to be corrupt and dishonest in revealing true financial status of a company, the public faith and the shareholder's confidence on the company goes down rapidly leading to the company's downfall. There are companies that put its workers in danger by neglecting to follow safe operating procedures risk a public relations disaster, not to mention legal ramifications. Similarly, companies that exploit workers risk negative publicity, even if they have a strong customer base. Public outcries against clothing companies that rely on sweatshop industries in developing countries exemplify the type of negative publicity that can result from distant unethical behavior.

Some businesses unethically pursue temporary profits without considering the long-term impact of their actions on the physical environment. For example, if timber companies fail to plant trees to replace the ones they harvest, sooner or later the industry will destroy itself, as well as the world. Similarly if the hydrocarbon exploration companies exploit the oil and gas reserves by over production and fail to replace the exploited reserves with new discoveries through vigorous exploration activities, the future of those companies will be at stake. Ethical businesses, on the other hand, recognize that sustainable practices like optimum level of production for hydrocarbon exploration companies maximize their future prospects and have the added benefit of minimizing environmental damage.

If unethical business practices are prevalent, the risk of damaging the business environment is far greater than anticipated. For example, if financially reckless companies fail to follow ethical accounting guidelines, shareholders can't make informed decisions.

Consequently, some investors might lose everything if a company's true financial position is shakier than revealed. Similar risks exist even on the level of small businesses. If a company lies about its finances, its employees can't make informed decisions about their futures with the unstable company.

Ethics concern an individual's moral judgements about right and wrong. Decisions taken within an organisation may be made by individuals or groups, but whoever makes them will be influenced by the culture of the company. The decision to behave ethically is a moral one; the managers and employees must decide what they think is the right course of action. This may involve rejecting the route that would lead to a big short time profit.

Ethical behaviour and a benevolent corporate social responsibility can bring significant benefits to a business. For example, they may:

- Attract customers to the firm's products, thereby boosting sales and profits.
- Make employees want to stay with the business, reduce labour turnover and therefore increase productivity.
- Attract more employees wanting to work for the business, reduce recruitment costs and enable the company to get the most talented employees.
- Attract investors and keep the company's share price high, thereby protecting the business from takeover.

It is said that there is cut throat competitions everywhere in the business world today. Companies are trying to make rooms into the customers with innovative products and smart customer centric approaches. Success and failure of a company depends largely on the trust and goodwill it generates. A company that follows ethical business practices is seen with high esteem. On the other hand, a company that is caught doing unfair practices loses its reputation very fast. After all we all know that, "Honesty is the best policy".



Bhupesh Choudhury

Senior Manager (BP)

THE GRAIN TRADE OF ROME: LEARNING FOR THE MODERN MANAGEMENT IN THE PERSPECTIVE OF VIGILANCE

Like many of you, I was also astonished when “The Roman Grain Trade” was brought for deliberation as a case study during an online short course by Prof. Rolf Strom-Olsen from IE Business School, Madrid. At the beginning my attention was drawn by the name and slowly I was able to understand the relevance of it in the present day management context and could not withstand myself from sharing it with all of you.

The history reveals that the Roman Empire was characterized by government headed by emperors and large territorial holdings around the Mediterranean Sea in Europe, Africa and Asia. The 500-year-old Roman Empire was among the most powerful economic, cultural, political and military forces in the world of its time. It was the largest empire of the classical antiquity period, and one of the largest empires in world history. At its height under Trajan, it covered 5 million square kilometers and held sway over some 70 million people, at that time 21% of the world's entire population. The

power center of this empire was the city of Rome with a population of one million which was dependent on the supply of food grains from the various parts of the empire.

To understand the situation, if we make a generous estimate, considering that each person during that time consumed on average around 300 kg of wheat a year, total consumption of wheat would be approximately 300 million kg a year for the city of Rome of one million people. This large amount of wheat could not have been grown locally or even in Italy as a whole. So it was imported from around the Mediterranean Sea. The average capacity of Roman ships to carry food grains have been estimated to be around 70,000 kg, although there might be some larger ships also. The highly imprecise estimates imply that it required between two to three thousand voyages across the Mediterranean to feed Rome each year. Sicily and Egypt were vital for supplying the enormous belly of the city of Rome.

The bulk of wheat imports to Rome were private, that is, either sold or consumed by Roman and not ordered or funded by the government. In addition, the government obtained the wheat for its distribution by contracting with private merchants and shippers and sold any surplus to them. Almost all the wheat imports to Rome were handled through markets as a result.

The government intervened in the wheat market when prices rose too high. The government was distributing wheat in ordinary years to keep the residents content; it also tried to moderate price rises when the supply of wheat was interrupted by harvest failures or shipping disasters. There are many instances when the Roman emperors tried to keep the price of wheat in Rome low, but these interventions were the exception rather than the rule. The forms of these interventions—setting maximum prices, searching for more supplies, subsidizing purchasing—show that there were attempts to control a free market. The frequent mention of grain prices in our sources reveals the existence of a market where prices were variable and important. Roman merchants were operating in relatively free markets with occasional government intervention.

All the actors in the grain trade hailed from the upper three groups in Roman social hierarchy. The highest group, the senators, included only about 600 politically active members. The most visibly active businessmen came from the knights and wealthy freedmen. The knights were the slightly poorer relations of the senators, numbering about 5,000. Senators and knights formed a single class of educated, wealthy men. Since they had the leverage of high social standing without the legal and cultural constraints faced by senators, knights could become central figure in business. Below the senators and knights were the privileged freedmen, literally a first generation of educated slaves who either had been manumitted or had purchased their own freedom.

Now the question comes to the mind is that how few thousand of businessmen were managing the Roman grain trade. As per the traditional economic theory, to function a market for 500 years, it should have been an efficient market. In an efficient market, it should always be cheaper to contract out than to hire.

Keeping all these things in mind how did the people of Rome, about 2000 years ago, manage the trade and

sustained over 500 years? Considering the present day context, market information also was not enough along with flow of information. With lack of information, how Roman generate optimally or near optimally efficient market?

"A firm is an organisational solution to the transaction cost problem"

To bring efficiency to the market, Roman brought the firm concept in the business. A firm is an organisational solution to the transaction cost problem. But the problems of firm are divergent of interest of employees, principal-agent problem (agency cost).

Nobel laureate Ronald Coase noted that there are a number of transaction costs to using the market. The cost of obtaining a good or service via the market is actually more than just the actual price of the good. Other costs, including search and information costs, bargaining costs, keeping trade secrets, and policing and enforcement costs, can all potentially add to the cost of procuring something via the market. This suggests that firms will try to produce what they need internally and somehow avoid these costs.

But there is a natural limit to what can be produced internally, however. Coase notices "decreasing returns to the entrepreneur function", including increasing overhead costs and increasing propensity for an overwhelmed manager to make mistakes in resource allocation. This is a countervailing cost to the use of the firm.

Ronald Coase argues that the size of a firm (as measured by how many contractual relations are "internal" to the firm and how many "external") is a result of finding an optimal balance between the competing tendencies of the costs outlined above.

Now, the most relevant question comes to mind is that how Romans were able to efficiently manage the external and internal contractual relationship? Various studies reveal that that the Romans were very good in contract formulation, documentation as well as in enforcement. All the contracts were laid down nicely in triplicate. One copy each retained by the two contracting parties and the third copy was kept at the central depository of ruler. If anything happen with the copies in hand, the terms and conditions could have



been referred from the central depository contract. Further, central depository helped in refining contracts with the passage of time. Further, as the intention of the government was also to provide the wheat grain to its citizen at affordable price, it was also interested in enforcing the contract so that the supply chain works efficiently.

But the most interesting thing is how were they able to manage the internal contracts or divergent interest of its employees? They had to send their agents to the far flung locations of the Roman Empire with a bag of gold coins and draw contracts with the small local vendors on their behalf. The lack of flow of information along with distance was creating a conducive environment for the agents to indulge with all kind of fraudulent activities. If the agents had been indulged in such activities, the market would not have been so efficient and last for about 500 years. In present day context, if a firm allow somebody to do something like that on its behalf, then there are numbers of checks and balances including various monitoring procedures including audits, vigilance etc. Even after having all these checks and balances, firms are not being able to curb down those acts. Then how Romans were able to do that?

During that period, slavery was existing in the Roman kingdom and Senators, Knights and Freedman used their slaves to make transaction on their part. They sent their slaves for business purposes and slaves were faithful to their masters. The slaves were faithful to their masters because of fear. But can fear be the

only reason which allowed market to function? Being sceptical, can an efficient market run for 500 years? If that is the case, can the modern businesses work efficiently by bringing fear psychosis? Certainly fear can not be the single or primary reason for the success of the Roman Grain Trade during that period. Then what it could be?

The main reason was nothing but the reputation, trust incentive. It directed towards the social inclusion and exclusion. If anybody did not respect the moral contract, he had the risk of being socially excluded and would be unable to earn living. Roman puts reputation and trust as incentives for optimum outcome. If a slave was able

“Roman puts reputation and trust as incentives for optimum outcome”

to build his reputation, with passage of time he was able to buy his independence and became Freedman. Those Freedmen used to carry the last name of their masters which shows their trustworthiness in the society and helped in living their life. It is like the branding.

Many of the modern managements are also still following this path of reputation and trust incentive theory for managing their businesses shown 2000 years back by the Romans.

Ref: Online short course on “Critical Perspective on Management” by Rolf Strom-Olsen and various internet sources





C K Das

SE (Field Engineering Department)

LIVING FOR OR A FEW DOLLARS MORE OR ...?

If money help a man to do good to others, it is of some value; but if not, it is simply a mass of evil, and the sooner it is got rid of, the better - Swami Vivekananda

Living in this digital world, all our lives have their own share of “bits” and “bytes”. Social Networks and instant messengers are the way to “share” our thoughts and ideas. That other day a picture containing a spiritual story was shared to me through an instant messengers. The story goes as,

“A boy and a girl were playing together. The boy had a collection of marbles. The girl had some sweets with her. The boy told the girl that he will give her all his marbles in exchange for her sweets. The girl agreed. The boy kept the biggest and the most beautiful marble aside and gave the rest to the girl. The girl gave him all her sweets as she had promised. That night, the girl slept peacefully. But the boy couldn't sleep as he kept wondering if the girl had hidden some sweets from him the way he had hidden his best marble.”

The story makes us ponder. Ponder about the virtue called truth. Had the boy of our story been true to his words, he would not have even bothered to think of a betrayal by the little girl. “We are what our thoughts have made us” (Swami Vivekananda). The “corrupt” practice of the little boy made his thoughts “corrupt”. If one assumes the story of the little boy to be true, ones thoughts naturally veers to a bigger perspective, the corruption in real life by real people. Indulging in corrupt practices in nothing but lying or attempting to suppress the truth. One lie leads to another to keep the previous lie covered, until a liar is caught in a web of deceit that destroys his soul and reputation. Since society depends upon truth for existence, a liar will be shunned by the society once his “dishonest or fraudulent conduct” are bared naked.

“Dishonest or Fraudulent Conduct” of the ones who weave a web of lies, are always aimed at attaining materialistic gains. For a gain of a few thousands or lakhs in bank accounts (which again are to be hidden



from authorities with lies) , dishonest ones risk not only their whole reputation, but also they put the reputation of their near and dear ones at peril. The dishonest person often thinks himself as clever, clever in hiding the truth. But can such a person completely burry the inner voice? The voice of conscience? Or can he overcome the fear, the fear of being unmasked. Well as the world goes by, the answer to these questions are always in the negative. Though the path of truth is not always strewn with roses, but at the end of the web of deceit, only and only the truth prevails. Instead of seeking glory in a bunch lies and living in a perpetual denial mode, one should take the power of truth to the path of glory. The path of lies can attain a few simplistic gains, but the trickery of a liar will always trick the liar to the harsh reality of truth.

Though strict means and measures are at place both in conventional or in technological fronts to destroy the web of deceit cast by the fraudulent few, it is almost impossible to attain “Zero Corruption” , unless the

“fraudulent few” realizes the myth of “easy money”. There is no such thing as “easy money”, as to gain the unethical easy money the dishonest one have to corrupt his mind and soul and weaken his conscience. Not an easy task at all ! The mythical easy money hypnotizes the fraudulent few with its glitz and shine to such an extent that the hypnotized ones see no further than web of lies. Life also throws in its own share of befooling elements in the form of materialistic comfort to the dishonest ones. The real comfort that a truthful life can usher in is almost lost in the shining glory of fraud and dishonesty. But such shining glory is only temporary, as the truth will always prevail and unmask the hidden truth.

“Anything that makes you weak physically, intellectually and spiritually, reject as poison” - Swami Vivekananda. Let us reject the poison of dishonesty to create a society where only the ways of truth are upheld and virtue of honesty is lauded and truth , only the truth brings in the laurels.





Anirban Bharali
Manager-Personnel
Personnel Department

THE ESSENCE OF GOOD GOVERNANCE

Governance is the new Mantra in all developmental initiatives of a progressive nation. Governance has become a prime topic as evidence mounts on the critical role it plays in determining societal well-being. "Good Governance" is perhaps the single most important factor in eradicating poverty and promoting development.

What is Governance?

Definitions can be challenging, subtle, complex and powerful. Let us begin by a definition of what governance is not. Governance is not synonymous with government. This confusion of terms can have unfortunate consequences. A public policy issue where the heart of the matter is a problem of "governance" becomes defined implicitly as a problem of "government", with the corollary that the onus for "fixing" it necessarily rests with government.

Since governance is not about government, what is it about? Partly it is about how governments and other social organizations interact, how they relate to citizens, and how decisions are taken in a complex

world. Thus, governance is a process whereby societies or organizations make their important decisions, determine whom they involve in the process and how they render account. Since a process is hard to observe, students of governance tend to focus our attention on the governance system or framework upon which the process rests - that is, the agreements, procedures, conventions or policies that define who gets power, how decisions are taken and how accountability is rendered.

The concept of governance may be usefully applied in different contexts - global, national, institutional and community. Understanding governance at the national level is made easier if one considers the different kinds of entities that occupy the social and economic landscape.

Defining Good Governance

There is absolutely no doubt that Governance is the new buzzword in development discourse. The World Bank and other international financial institutions identify public sector management, transparency,



legal framework, accountability and information as the key components of governance. In a country like India, which has the largest number of poor people in the world and also ranks high on the list of most-corrupt nations, good governance involves fighting corruption, improving bureaucratic and political accountability and promoting people's participation and public-private partnerships.

India, one of the world's largest countries, has made tremendous strides in its economic and social development in the past two decades and is poised to realize even faster growth in the years to come. India currently stands at the threshold of a unique opportunity regarding governance and public management reform.

India may not be a young country in terms of commercial trade but as far as scripting the growth story as an independent nation is concerned, we are relatively young. No nation is bigger than the people, and all policies and initiatives undertaken by any government is for the people. How does it even matter who governs or who is at the helm? The *prima facie* task of any government is governance, but as mentioned above, there is a world of difference between governance and "good governance" and very few governments over the years have practiced it.

Good governance has to be a relative term rather than being absolute. The global definition of good governance may not fit into the scenario of every country since the demand side of governance may differ from one country to another. The UNDP definition of "Good Governance" encompasses three key words: **Transparency, Accountability and Participatory**. These three words form a key part of any governance model which may be deemed 'good'.

One of the dimensions which has gained prominence and may be considered as the fourth dimension of governance is **Time**. Gone are those days when only the delivery of services was important. How quickly is a service delivered to the beneficiaries is also important. On this front, a combination of numbers and perception can provide us a fair indication. The extent of use of technology by a government can be estimated by the number of e-services offered. How well have the people taken up to e-services can be estimated by the number of e-transactions per 1000 people. Gujarat and Andhra

Pradesh are the only two states who have managed to touch the five-figure mark. Bihar stands as the second lowest state with just 138.4 e-transactions recorded per 1000 people. The general perception of all the 3 states by its residents is also quite similar. A combination of numbers and perception can provide us a satisfactory judgment.

Initiatives in Good Governance

No single term has come to dominate development discourse in the new millennium as much as 'governance'. From good governance to corporate governance and more recently e-governance, the term has gained in popular usage.

In recent years the government, both at the central and state levels, has tried to improve the quality of governance. For example, Andhra Pradesh has set up a Centre for Good Governance with the effort being to use information technology to improve the quality of services particularly for the poor and marginalized.

One of the important initiatives in this regard has been the publishing of citizens' charters by a large number of government departments and enterprises. These charters, modeled on what the UK government did, seek to provide citizens with information on the service they can expect from a government department and the redressal mechanisms that are available to them in case of grievances.

E-governance

More recently the spread of e-governance initiatives have had a positive impact on the quality of governance though their number and spread is still limited. e-Governance in India has steadily evolved from computerization of Government Departments to initiatives that encapsulate the finer points of Governance, such as citizen centricity, service orientation and transparency. The National e-Governance Plan (NeGP), takes a holistic view of e-Governance initiatives across the country, integrating them into a collective vision and a shared cause.

The talks on good governance may remain rhetorical unless our models of governance come out of the party politics and look at identifying good policies on governance and focus on horizontal deployment across states. Also, the concept of good governance has evolved and new dimensions like those of time and technology are largely being identified. Parties

and governments need to take heed and work in an absolute sense to take both their numbers and the public perception to a new high.

Eight Elements of Good Governance

Good governance has 8 major characteristics. It is participatory, consensus oriented, accountable, transparent, responsive, effective and efficient, equitable and inclusive, and follows the rule of law. Good governance is responsive to the present and future needs of the organization, exercises prudence in policy-setting and decision-making, and that the best interests of all stakeholders are taken into account.

1. Rule of Law <p>Good governance requires fair legal frameworks that are enforced by an impartial regulatory body, for the full protection of stakeholders.</p>	2. Transparency <p>Transparency means that information should be provided in easily understandable forms and media; that it should be freely available and directly accessible to those who will be affected by governance policies and practices, as well as the outcomes resulting there from; and that any decisions taken and their enforcement are in compliance with established rules and regulations.</p>
3. Responsiveness <p>Good governance requires that organizations and their processes are designed to serve the best interests of stakeholders within a reasonable timeframe.</p>	4. Consensus Oriented <p>Good governance requires consultation to understand the different interests of stakeholders in order to reach a broad consensus of what is in the best interest of the entire stakeholder group and how this can be achieved in a sustainable and prudent manner.</p>
5. Equity and Inclusiveness <p>The organization that provides the opportunity for its stakeholders to maintain, enhance, or generally improve their well-being provides the most compelling message regarding its reason for existence and value to society.</p>	6. Effectiveness and Efficiency <p>Good governance means that the processes implemented by the organization to produce favorable results meet the needs of its stakeholders, while making the best use of resources – human, technological, financial, natural and environmental – at its disposal.</p>
7. Accountability <p>Accountability is a key tenet of good governance. Who is accountable for what should be documented in policy statements. In general, an organization is accountable to those who will be affected by its decisions or actions as well as the applicable rules of law.</p>	8. Participation <p>Participation by both men and women, either directly or through legitimate representatives, is a key cornerstone of good governance. Participation needs to be informed and organized, including freedom of expression and assiduous concern for the best interests of the organization and society in general.</p>

Towards Improved Governance...

Good governance is an ideal which is difficult to achieve in its totality. Governance typically involves well-intentioned people who bring their ideas, experiences, preferences and other human strengths and shortcomings to the policy-making table. Good governance is achieved through an on-going discourse that attempts to capture all of the considerations involved in assuring that stakeholder interests are addressed and reflected in policy initiatives.

[Source : World Wide Web]

Aabir Saikia

Public Relations Department,
Corporate Office, Noida



CURBING CORRUPTION - "IS IT AN IMPOSSIBLE REALITY?"

Writing about 'Corruption' in today's parlance, literally bears no significance. Corruption in India has almost become a household name. So defining it and analysing its show cause doesn't impress me anymore. But what's more important is to define pathways in how to tackle and curb out corruption from the generic Indian veins. I am writing this article solely to analyse the serious problem of corruption in India by examining ways to formulate anti-corruption measures which for me seems "An Impossible Reality".

Political corruption is the use of powers by government officials for illegitimate private gain. An illegal act by an officeholder constitutes political corruption only if the act is directly related to their official duties which is done under colour of law or involves trading in influence. Corruption implies the pure degradation of integrity, morality and character of an individual to achieve undue favour for monetary or other gains.

Anti-corruption measures were first employed by the government from the formation in 1941 of the first anti-corruption agency, the Delhi Special Police Establishment, which was expanded to form the Central Bureau of Investigation (CBI) in April 1963.

India's ineffective anti-corruption strategy can be attributed to the lack of political will of its leaders and its unfavourable policy context, which has hindered the enforcement of the anti-corruption laws. The lack of political will in fighting corruption is manifested in the lowest per capita expenditure and least favourable staff-population ratio of the CBI when compared to those of its counterparts in Singapore, Hong Kong, South Korea and Thailand. To enhance the CBI's effectiveness, it should be removed from the jurisdiction of the police and be established as an independent agency dedicated solely to curbing corruption. The Constitution of India should also be amended to empower the CBI to investigate corruption cases at the state level without obtaining the consent of the chief minister of the state. In view of the lack of political will, I am forced to say that curbing corruption in India remains an impossible dream in the foreseeable future. Having looked at some of the ways in which corruption damages the social and institutional fabric of a country, it is of utmost necessity to take reform options open to governments to reduce corruption and mitigate its effects. Experts recommends a two-pronged strategy aimed at increasing the benefits of being honest and

the costs of being corrupt, a sensible combination of reward and punishment as the driving force of reforms. Let's discuss below six complementary approaches.

1. Paying civil servants well

Whether civil servants are appropriately compensated or grossly underpaid will clearly affect motivation and incentives. If public sector wages are too low, employees may find themselves under pressure to supplement their incomes in "unofficial" ways. It is found that in a sample of less developed countries, there is an inverse relationship between the level of public sector wages and the incidence of corruption.

2. Creating transparency and openness in government spending

Subsidies, tax exemptions, public procurement of goods and services, soft credits, extra-budgetary funds under the control of politicians—all are elements of the various ways in which governments manage public resources. Governments collect taxes, tap the capital markets to raise money, receive foreign aid and develop mechanisms to allocate these resources to satisfy a multiplicity of needs. Some countries do this in ways that are relatively transparent and make efforts to ensure that resources will be used in the public interest. The more open and transparent the process, the less opportunity it will provide for malfeasance and abuse. Countries where citizens are able to scrutinize government activities and debate the merits of various public policies also makes a difference. In this respect, press freedoms and levels of literacy will, likewise, shape in important ways the context for reforms. Whether the country has an active civil society, with a culture of participation could be an important ingredient supporting various strategies aimed at reducing corruption.

For instance New Zealand, which is consistently one of the top performers in Transparency International's Corruption Perceptions Index, is a pioneer in creating transparent budget processes, having approved in 1994 the Fiscal Responsibility Act, providing a legal framework for transparent management of public resources.

3. Cutting red tape

The high correlation between the incidence of

corruption and the extent of bureaucratic red tape as captured, for instance, by the Doing Business indicators suggests the desirability of eliminating as many needless regulations while safeguarding the essential regulatory functions of the state. The sorts of regulations that are on the books of many countries—to open up a new business, to register property, to engage in international trade, and a plethora of other certifications and licenses—are sometimes not only extremely burdensome but governments have often not paused to examine whether the purpose for which they were introduced is at all relevant to the needs of the present. Experts suggest that "the most obvious approach is simply to eliminate laws and programs that breed corruption."

4. Replacing regressive and distorting subsidies with targeted cash transfers

Subsidies are another example of how government policy can distort incentives and create opportunities for corruption. According to an IMF study (2013), consumer subsidies for energy products amount to some \$1.9 trillion per year, equivalent to about 2.5 percent of global GDP or 8 percent of government revenues. These subsidies are very regressively distributed, with over 60 percent of total benefits accruing to the richest 20 percent of households, in the case of gasoline. Removing them could result in a significant reduction in CO2 emissions and generate other positive spillover effects. Subsidies often lead to smuggling, to shortages, and to the emergence of black markets. Putting aside the issue of the opportunity costs (how many schools could be built with the cost of one year's energy subsidy?), and the environmental implications associated with artificially low prices, subsidies can often put the government at the center of corruption-generating schemes. Much better to replace expensive, regressive subsidies with targeted cash transfers.

5. Establishing international conventions

Because in a globalized economy corruption increasingly has a cross-border dimension, the international legal framework for corruption control is a key element among the options open to governments. This framework has improved significantly over the past decade. In addition to the OECD's Anti-Bribery Convention, in 2005



the UN Convention Against Corruption (UNCAC) entered into force, and by late 2013 had been ratified by the vast majority of its 140 signatories. The UNCAC is a promising instrument because it creates a global framework involving developed and developing nations and covers a broad range of subjects, including domestic and foreign corruption, extortion, preventive measures, anti-money laundering provisions, conflict of interest laws, means to recover illicit funds deposited by officials in offshore banks, among others. Since the UN has no enforcement powers, the effectiveness of the Convention as a tool to deter corruption will very much depend on the establishment of adequate national monitoring mechanisms to assess government compliance.

Governments will need to be more pro-active in cracking down on companies that continue to bribe foreign officials. In their efforts to protect the commercial interests of national companies, governments have at times been tempted to shield companies from the need to comply with anticorruption laws, in a misguided attempt not to undermine their position vis-à-vis competitors in other countries. Trade promotion should not be seen to trump corruption control. Governments continue to be afflicted by double standards, criminalizing bribery at home but often looking the other way when bribery involves foreign officials in non-OECD countries.

6. Deploying smart technology

Just as government-induced distortions provide many opportunities for corruption, it is also the case that frequent, direct contact between government officials and citizens can open the way for illicit transactions. One way to address this problem is to use readily available technologies to encourage more of an arms-length relationship between officials and civil society; in this respect the Internet has been proved to be an effective tool to reduce corruption. In some countries the use of online platforms to facilitate the government's interactions with civil society and the business community has been particularly successful in the

areas of tax collection, public procurement, and red tape. Perhaps one of the most fertile sources of corruption in the world is associated with the purchasing activities of the state. Purchases of goods and services by the state can be sizable, in most countries somewhere between 5-10 percent of GDP. Because the awarding of contracts can involve a measure of bureaucratic discretion, and because most countries have long histories of graft, kickbacks, and collusion in public procurement, more and more countries have opted for procedures that guarantee adequate levels of openness, competition, a level playing field for suppliers, fairly clear bidding procedures, and so on.

Chile is one country that has used the latest technologies to create one of the world's most transparent public procurement systems in the world. ChileCompra was launched in 2003, and is a public electronic system for purchasing and hiring, based on an Internet platform. It has earned a worldwide reputation for excellence, transparency and efficiency. It serves companies, public organizations as well as individual citizens, and is by far the largest business-to-business site in the country, involving 850 purchasing organizations. In 2012 users completed 2.1 million purchases issuing invoices totaling US\$9.1 billion. It has also been a catalyst for the use of the Internet throughout the country.

If many of the measures discussed above are aimed at combating corruption, the underlying philosophy that corruption cannot be curbed may be proved wrong. It can only be done by closing off loopholes and eliminating misconceived rules that encourage corrupt behaviour. But an approach that focuses solely on changing the rules and the incentives, accompanied by appropriately harsh punishment for violation of the rules, is likely to be far more effective, also supported by efforts to buttress the moral and ethical foundation of human behaviour. Else cubing corruption will always remain an impossible reality.

Reference: [The World Bank\(IBRD.IDA\)](#)

G K ROY

MATERIALS DEPARTMENT



COMBATING CORRUPTION - TECHNOLOGY AS AN ENABLER

Preamble:

Corruption is one of the major issue which is to be dealt on priority, as its practice has badly affected development of the country in every respect. It has spreaded like virus in every sector & every level. Therefore to arrest corruption in various organisations, it is necessary for citizens to be conscious & vigilant all the time. Without eradicating corruption, it is almost impossible to expect development of a nation. Our country is worse affected because of corruption which is deeply rooted.

Technology as a tool

It is very difficult to trace out, it is again difficult to prove the action with supportive document. Further, even if all the facts & documents are available, it takes a long time to book the culprit.

In view of time it was felt essential to discover such a system so that indulging corruption by implementing such system. With this necessarily, various modern technologies have come in to picture to fight against corruption. Since it is very difficult to monitor each and every aspect individually and manually, electronic

systems have been introduced to check the deviation of norms.

In our country, we have already started implementing online, computer based system in various organisation so that all the activities can be passed through such system where it becomes almost impossible for corruption to take place.

Adoption of Technology by various corporate sector & its result

Earlier, Railways used to book ticket manually. This system invited corruption as there was no system check for anomalies is covered by "on line ticket booking system through IRCTC". Submission of claims for refund also made online so that every individual can see the refund status. This on line ticket booking system, have given a wonderful result to arrest the unfair practice of ticket booking system which was earlier done manually.

Indian Railways have implemented some other system in different areas which are as under :-

- Online application for recruitment, admit card, result declaration



- Railway consignment booking, consignment tracking
- E – procurement & E- auction

Earlier Railway used to send admit card for written test/ interview through post, Now a days the same is available online. They have also started carrying interview which carries no marks (merit) . It may be noted "Interview "is another area where favourism is likely to take place.

Now a days , Railway consignment can be tracked. E- procurement & E auction system have given a very good result in arresting unfair practice.

PSU : Banking Sector. Following are the system which have been implemented by banking sector to improve the efficiency & to fight corruption.

- RTGS payment
- NEFT Payment
- Online release of loan
- Fund transfer through ATM

In Oil / Mining / Energy Sector

OIL INDIA

Oil India also have started using various technology & there have been put in place to check various anomalies some are as under :-

E- Tendering: OIL goes for e-tendering for procurement valued at Rs. 25.00 lakhs or more. This has enabled the bidder to submit their bid o bond & performance bank guarantee is though still done manually, very soon there two are also will be done online.

Payment: Online payment through RTGS has been introduced in OIL to make payment to vendors in time.

Bill Tracking System : Now the parties associated with Oil can track to due payment online from any where in the world.

Recruitment: Online display of various vacant post in OIL, submission of application form etc. are practiced in OIL. However OIL may look in to some other areas where there is chance of corruption to take place - Interview - Merit is this parameter should be very minimum or nil. Since this is the area where favourism comes into. Railways have started to adopt this system.

SAP:- SAP system has been implemented by OIL in 2005. Now most of the works in OIL is SAP based. SAP has brought a drastic change in working system in OIL. All the activities done through SAP have record. This has increased accountability is individual & hence ensured efficiency & fair practice amongst the executives & employees.

From the above, it is evident that in today' s corporate sectors are going for the system to carry out day to day works with maximum efficiency & without any favourism, partiality , or any such unfair practice.

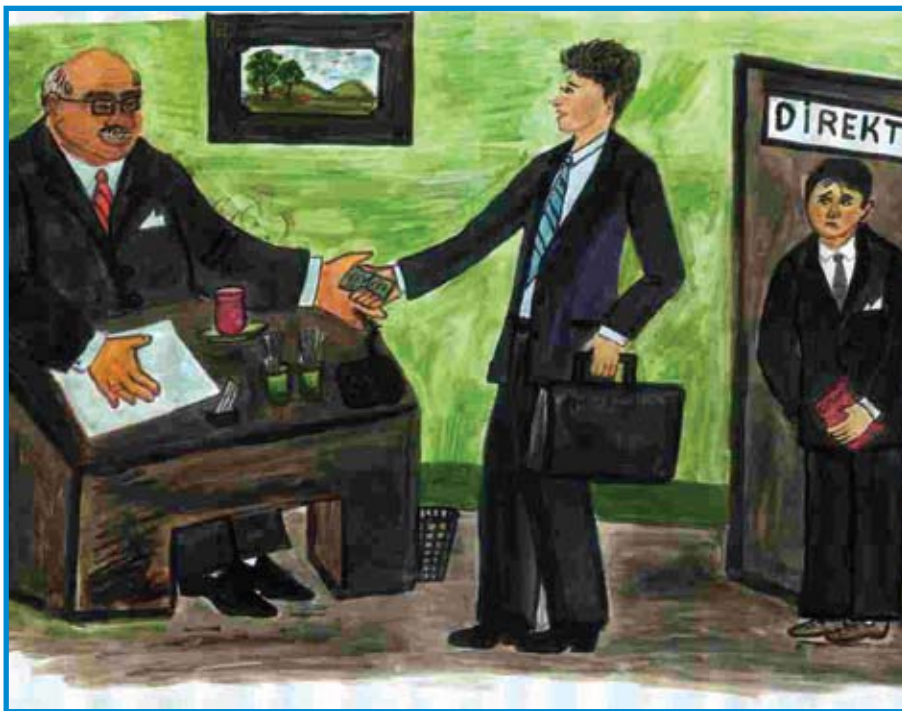
Full proof system:- Another check point to check the deficiency in system.

We are adopting new technology with an intention to check the malpractice. However, this system necessarily be a full proof system. Otherwise cracking this system is not a difficult job for those evils persons who's mind & blood is continuously struggling to indulge the wrong thing. We are not unaware of hijacking bank account, social media account & even ATM PIN. Therefore continuous effort on further development system in place to be thought of and the same to be made further robust.

Conclusion:

From the above, it is clear that adoption new technology always prevents deviation of rules. It enhances alertness to the users & insists internally not to do any mal practice out as fear of being caught. In other words technology prompts to go in right track which can be termed as "Preventive Vigilance".

**AN AWARD WINNING ESSAY IN
VIGILANCE AWARENESS WEEK 2014**



S. Rajasekhar

Corporate Vigilance Department

ETHICS AND CORRUPTION IN EDUCATION

Corruption is defined in various ways in the literature. One can imagine that the main characteristics of corruption in the education sector are common to those of other public sectors and thus, can be defined as 'the use of public office for private gains'. This covers a wide range of activities, such as: clientelism, soliciting or extortion of bribes, nepotism, theft of public goods, etc etc. An interesting definition establishes a link between the identification of corrupt behaviour and its effects, and insists upon the factor of regularity involved, by saying that corruption can be presented as 'the systematic use of public office for private benefit that results in a reduction in the quality or availability of public goods and services'. When applied to the particular field of education, this may lead to the following definitions of corruption: 'the systematic use of public office for private benefit whose impact is significant on access, quality or equity in education'.

Some of the definitions of corruption make useful distinctions between petty (already defined above) and grand corruption (which is the domain of high level public officials and politicians who make decisions involving large public contracts or projects). Applied to the field of education; this would mean distinguishing between

those civil servants who, because of their strategic position in the management of the education sector, may be paid to those who are in contact with foreign aid, where the amounts of money concerned could encourage corrupt behaviour; and those who, because of their limited influence on the management of the education system and, more specifically, on its resources (such as teachers) may be involved only in petty corruption. It may be recalled that grand corruption is likely to be found mostly at the national level, but that in the case of decentralized education system, it can involve both national and local actors; the same concerns countries where international flows of aid are targeted at local level.

One of the problem that may crop up when implementing the project is to know where to draw the line between corrupt and honest behaviour, in particular because of the importance of socio cultural factors in the perception of corruption. On example, recently submitted to I I E P (International Institute of Educational Planning), is the following: many universities in the USA given preference in admission to the children of alumni - is this a corrupt practice, or is proper acknowledgement that a university is a community extending over



generations? There is probably a continuum between what should be considered honest and what should be considered corrupt, with the problem being how to define the grey areas between the two.

Conceptual frame work : a first attempt

All the areas in the field of planning and management are likely to be affected by phenomena of corruption, namely : information system, the building of school, recruitment, promotion (including systems of incentives) and appointment of teachers, the supply and the distribution of specific allowances etc. etc.

A first attempt to establish a typology of the main areas of planning/ management that offer opportunities for corruption in the education . Different types of corrupt practices liable to crop up in each of these areas are given, including favouritism, by passing of criteria; embezzlement, etc., as well as the possible impact of these practices on access, quality, equity or ethics. In all cases, corrupt practices can of course have a negative impact on ethics – the sense of the word ethics 'being limited here to be acquisition of ethical values and behaviour by children. A distinction could be introduced, further along in the process, between direct and indirect effects of corruption. For instance, it can be expected that corrupt practices in the field of recruitment, promotion and appointment of teachers as well as their conduct will have the most direct effect on the quality of education. But the other practices mentioned below, in areas such as the building of schools or the supply or distribution of equipment, food or textbooks, will also have indirect effects on quality.

Summary of some of the main practices of corruption observed within the education sector, and their possible impact on access, quality, equity and ethics. You can find the areas of corruption below :

Areas of Planning/ Management involved.	Corrupt Practices	Elements of Education systems most affected
Building of Schools	<ul style="list-style-type: none"> • Public tendering • Embezzlement • School mapping 	Access Equity
Recruitment, Promotion and appointment of teachers (including systems of incentives)	<ul style="list-style-type: none"> • Favouritism • Nepotism • Bribes and Pay-offs 	Quality

Areas of Planning/ Management involved.	Corrupt Practices	Elements of Education systems most affected
Conduct of teacher	<ul style="list-style-type: none"> • Ghost teachers • Bribes and Pay-offs (for school entrance or for the assessment of children etc.) 	Access Quality Equity Ethics
Allocation of Specific allowances (Compensatory measures, fellowships, subsidies to the private sector, etc.)	<ul style="list-style-type: none"> • Favouritism • Nepotism • Bribes and Pay-offs • By passing of criteria 	Access Equity
Examination and diplomas	<ul style="list-style-type: none"> • Selling of information • Favouritism • Nepotism • Bribes and Pay-offs • Academic fraud 	Equity ethics

The cost of corruption in education : Several studies conducted during the past decade have clearly emphasized the negative impact of corruption on the economic, political and social development of countries. It has been observed that corruption increases transaction costs, reduces the efficiency and quality of services, distorts the decision-making process, and undermines social values. Recent surveys conducted on the impact of corruption on the provision of social services – including education – thus suggest, for instance, that illegal payments for school entrance and other hidden costs help explain low school enrolment and high drop-out rates in developing countries and that bribes and pay-offs in teacher recruitment and promotion tend to lower the quality of public –school teachers.

Among the main factors leading to corrupt behaviour, one can mention poverty and the low salaries earned by public officials and civil servants. It thus seems that the poorer a country, the higher the level of petty corruption; in very poor countries petty corruption is sometimes considered as a normal pattern of behaviour or as a norm for buying services (this is not the case for grand corruption, which can be found everywhere and is generated and maintained at a high level of decision –making in the power structure of different societies) . But the existing literature on the subject shows that corruption also has connections with the stability

of political systems, the existing legal frameworks, the transparency of public information, the level of accountability of individuals and institutions, the efficiency of the mechanisms of governance in place, the importance and characteristics of foreign aid etc.

A cursory review of the literature suggests that there are very few documents available dealing in a comprehensive and systematic manner with the various aspects of corruption that exist in the field of education. Yet, it is clear that the fight against corruption in the specific sphere of education should be regarded as a major priority as it affects not only the volume of educational services, including their quality and efficiency, but also equity in education and public confidence in educational systems. Against this background, the International Institute for Educational Planning (IIEP) has launched a new research project, devoted to "Ethics and corruption in education", whose main objective is to improve decision-making and the management of educational systems by integrating governance and corruption concerns in educational planning and administration methodologies.

There are 3 main assumptions of the above project :

1. Monopoly power and lack of accountability mechanisms favour the development of corrupt practices in the education sector
2. Behaviours (intangible inputs) have a significant impact on problems of access, of quality and of equity in education. Intangible inputs include not only (i) the professional and ethical commitments of teachers and staff, but also (ii) transparent systems for collecting and disseminating information, (iii) effective systems of accountability and monitoring (iv)reliable judiciary, etc.
3. Facilitating access to information and promoting a "citizens'voice" are essential for improving transparency and accountability in the use of educational resources.

The IIEP has decided to address it by :

- making a clear distinction between two concepts: corruption in education and education against corruption.
- Focusing on institutions, procedures, mechanisms (governance, transparency, accountability), and not on individuals (crimes, prosecutions, etc);
- Mapping out the opportunities for corruption the education sector offers as a framework for both diagnosis and action design;

- Developing a set of new methodological tools for assessing corruption problems properly;
- Giving priority to the identification and documentation of successful strategies that can be adopted to improve transparency and accountability in education (positive approach).
- In a corrupt environment education cannot successfully promote ethical values and behaviours. In the other words to create a favourable environment for the teaching of values, it is crucial to ensure integrity and limit unethical behaviours within the educational sector.

The following are some conclusions drawn from the study :

1. Adherence to ethical standards and to codes of conduct can greatly contribute to the establishment of a more favourable educational environment, thus directly influencing the quality of education.
2. The successful enforcement of these codes requires (i) a clear definition of their aims (not limited to professional development); (ii) the wide dissemination of the codes; (iii) the establishment of both social or professional controls for their implementation; (iv) a strict sharing of responsibilities among the different stakeholders involved in their monitoring; and (v) the training of education personnel.
3. To ensure their credibility and ownership, teacher codes of conduct should be established through a participatory process involving the teaching profession. Minimum targets to achieve are the undertaking of sensitisation exercises, the sharing of information, capacity building, and efforts towards 'mainstreaming participation'.

In spite of the fact that the IIEP has been involved during recent years in conducting several audits on the management of the education sector, the issue of corruption has never been specifically addressed, and requires new approaches and even new partners.

Reference : Ethics and corruption in education - results from Expert Workshop held at IIEP, Paris 28-29 November 2001, published by IIEP/ UNESCO- 2002.

Excerpts : from 'journal of Education for International Development -1 (1) Research.

Time to be creative...

RIGHT ADMINISTRATION

Gadadhar Das, Dy. Superintending
Secretarial Officer, OIL, Noida

Government's principles are great really,
Its top leaders are great specially.
Some of them are very scholarly,
Many of them lecture beautifully.
Its laid down procedures are vast,
Its accepted constitution is great.
Still all kinds of crimes thrive,
Antisocial activities rise.
Criminals very easily prosper
And many honest citizens suffer.
Where women are exploited,
Mothers, sisters & daughters are humiliated.
Where corruption reigns supreme,
We suffer but unable to do anything.
Justice fails to protect the just and the right,
And it cannot deliver proper justice.
All democratic values silently die,
Because of our education system is shy.
Our education system is dormant,
Highly educated people are silent
India was great in its spiritual glory,
To say so we feel sorry.
Right kind of education is beneficial,
Integrated human beings are essential.
To render justice,
It is in simplicity based contentment and peace.
And compassion induced inward peace,
Inward happiness is the ultimate bliss.



My Family **History**

Smruti S Dash, Std VI,
DAV Public School Pokhariput,
Bhubaneswar
Daughter of Sri S S Dash,
CM F&A (ViGilance)

My Grandpaa Sri Satyabadi Dash about 90 yrs old is a retired High School Headmaster and he lives in our native village in Sukinda. The surname of my Grandpaa, my father, and myself is "Dash" This title is of very old and it is told by my Grandpaa that his forefathers were the slave (Dash) of Lord Jagannath and were doing the worship for God.

I was told by my Grandpaa that, his parents were very poor Brahmins and they were managing the family

expenses by performing the job of a priest. When my Grandpaa was only 5 yrs old and his younger brother was only 3 yrs old, his mother expired due to poor medical attention and since the condition of the house was very bad his father left the house and went somewhere missing, leaving the two sons as orphans. In the village, with the help of uncles of my Grandpaa, my Grandpaa did schooling upto class 5 in the village school. His uncle was also poor and so did not think of educating him further.



The minor school and high school was in the town , 20 km away. But Grandpaa had a strong

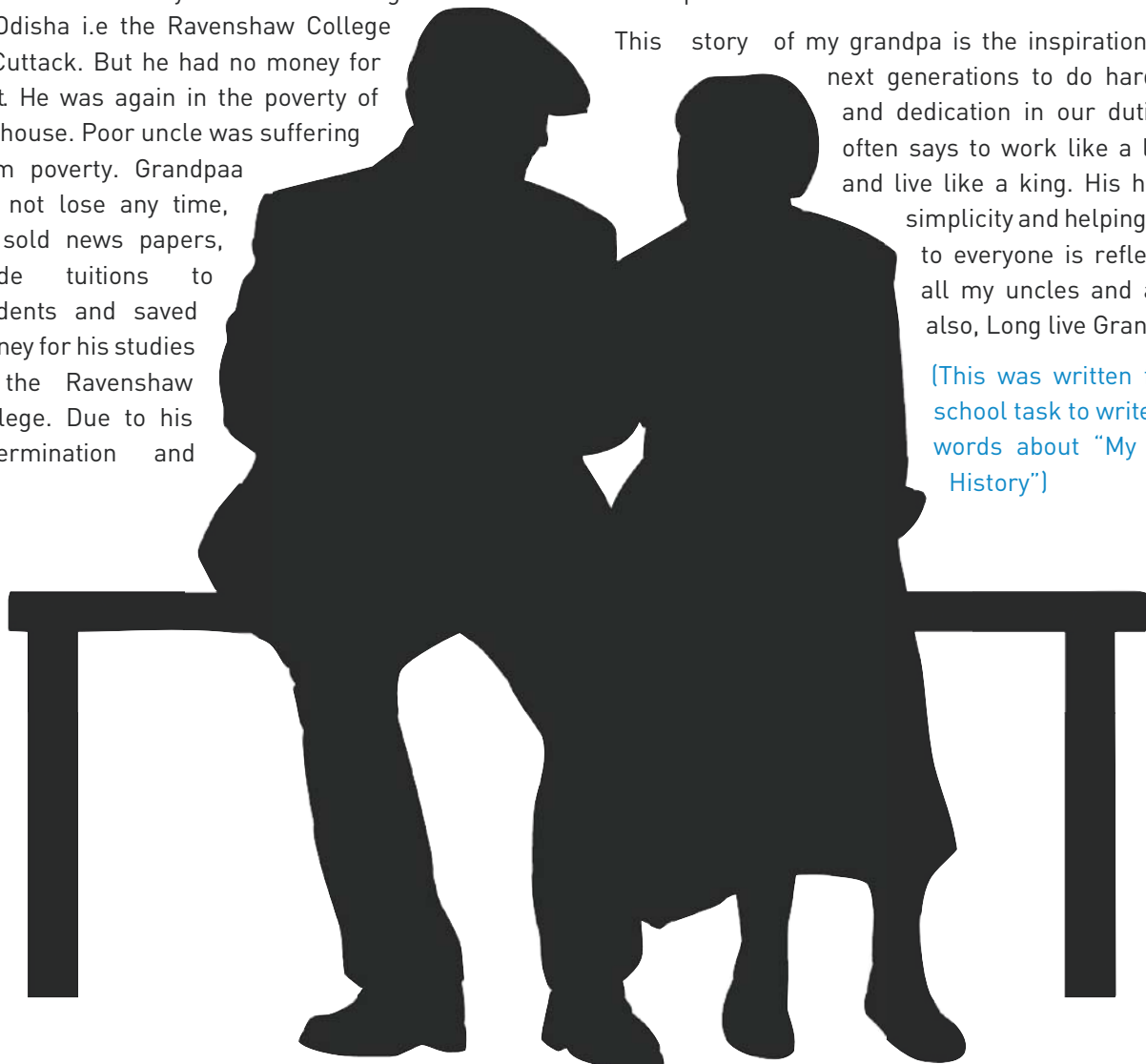
determination to study and so he ran behind a bullock cart wearing just a torn half pant. In the Cart another rich boy was going to the city with his parents for study. Someone saw this and told to uncle of Grandpaa . Poor uncle' of grandpa went running behind the boy and took him to KAMAKHYA NAGAR, the subdivision, and went to the head master of the High School requesting to give free education to the boy and keep in hostel. The headmaster was kind hearted and said that if he is studying well, he can stay free of cost in the hostel. My Grandpaa stayed in the hostel and he proved that he was the most studious and obedient student. He soon became the hostel monitor and at 4 am morning everyday he used to give the morning bell in the hostel and everyone gets up by that. He completed his matriculations with very high standard and was praised by the headmaster and every one for his achievements. However, he was not satisfied with that much of study. He wanted to study in the best college of Odisha i.e the Ravenshaw College in Cuttack. But he had no money for that. He was again in the poverty of his house. Poor uncle was suffering from poverty. Grandpaa did not lose any time, he sold news papers, made tuitions to students and saved money for his studies in the Ravenshaw College. Due to his determination and

will power, he successfully completed B.A and B Ed and he joined as School Inspector in the beginning of his career.

After he did his job, my Grandpaa cleared all the debts of his uncle and then married to Grandma, who was also from a very poor family. My Grandpaa always believe in hard work, dedication and simple living and high thinking. Grandpaa has 5 sons and 2 daughters. All are well educated and well established with the ideology and discipline of my Grandpaa. Elder son is Gold Medallist in mathematics and is serving as a Professor in a Govt college, 2nd son is an Electrical Engineer, my father is the 3rd son and he is a Cost Accountant, 4th son is PHD in Electrical Engineering and works as a Professor in SRM University in Chennai. Last son is a businessman. Elder daughter is MA. MED. PHD and is lecturer in Education in a College, and the 2nd daughter is MA , LLB . All are happily married and well settled. We meet in functions and vacations and enjoy with my brothers and sisters along with my Grandpa and Grandmaa.

This story of my grandpa is the inspiration to the next generations to do hard work and dedication in our duties. He often says to work like a laborer and live like a king. His honesty, simplicity and helping nature to everyone is reflected in all my uncles and aunties also, Long live Grandpa.

(This was written for her school task to write in 300 words about "My Family History")





FAMOUS INSPIRING QUOTES BY
Dr. A.P.J. ABDUL KALAM,
THE MISSILE MAN OF INDIA

“IF A COUNTRY IS TO BE CORRUPTION FREE & BECOME A NATION OF BEAUTIFUL MINDS,
I STRONGLY BELIEVE THAT THERE ARE THREE KEY MEMBERS WHO CAN MAKE A DIFFERENCE
THEY ARE THE 'FATHER, THE MOTHER AND THE TEACHER.”



“DIFFICULTIES IN YOUR LIFE DON'T COME TO DESTROY YOU BUT TO
HELP YOU REALISE YOUR HIDDEN POTENTIAL AND POWER,
LET DIFFICULTIES KNOW THAT YOU TOO ARE DIFFICULT.”

DREAM IS NOT WHAT WHICH YOU SEE IN SLEEP
IT IS SOMETHING WHICH DOES NOT LET YOU SLEEP ”.

“IT IS VERY EASY TO DEFEAT SOMEONE
BUT IT IS VERY HARD TO WIN SOME ONE.”

LEARNING GIVES CREATIVITY, CREATIVITY LEADS TO THINKING
THINKING LEADS TO KNOWLEDGE & KNOWLEDGE MAKES YOU GREAT.

“ALL OF US DO NOT HAVE EQUAL TALENTS BUT ALL OF US HAVE AN
EQUAL OPPORTUNITY TO DEVELOP OUR TALENTS.”

CORRUPTION IS THE LATEST EPIDEMIC IN THE PLANET
EATING THE PEOPLE LOOTING THE NATION
NO CURE, NO MEDICINE, NO SPECIAL HOSPITAL.
MONEY IS THE VIRUS, IT IS FATAL
EVERYONE IS STRUCK IN IT, WITH NO OBJECTION
FROM POLITICIANS TO SAINT
FROM COURTS TO GOVERNMENT OFFICERS,
ALL ARE INFECTED, ALL WANT MONEY
ALL WANT RIGHTS, ALL WANTS CONCESSIONS,
ALL WANTS PROMOTIONS, ALL WANTS MERCEDES
ALL WANTS FLIGHTS, NEXT GENERATION IS ABSORBING THE SAME
REALLY REALLY IT IS A BIG MATTER OF SHAME.

Fiza Jahan, Class : IX
Jamia Millia Islamia
D/o Naushad Ahmad



Corruption, Corruption, Corruption
It is now a progression
It is spreading like an infection
Right now, the tide of corruption is low,
Right now, the tide of corruption is slow,
It works like a termite
It needs instant cure and medication
But one thing I know
That happens one day.
At present the country is dull and lazy
Its goals and visions are hazy
Its views are far away
But the political leaders made it betray
Something left it astray
But the retassed
That happens one day.

THE DAY FREE FROM CORRUPTION.

Suchismita Das

Class VI
The Khaitan School, Noida.
Daghter of P P Das

CORRUPTION

Corruption is illegal
But, has this become our way of life?
It's not funny
All , everyone wants is money
But, tell them all, it's all wrong
It's our duty to let it go
Make corruption zero
Or our country will go slow.

Pragyan Nath
Class VII
Delhi Public School, Noida.

Son of D C Nath
Dy CE (Civil)

योगासना

— संजय कुमार महापात्रा
सतर्कता विभाग, नोएडा

शारीरिक एवं मानसिक स्तर पर स्वस्थ रहने के लिए प्राणायाम के साथ शरीर की मांसपेशियां तथा हड्डियों को मजबूत और लचीला रखने के लिए योगासन करना भी आवश्यक है। इनसे न केवल शरीर के बाह्य अंग पुष्टता प्राप्त करते हैं बल्कि अंदर के vital organs जैसे हृदय, फेफड़े, यकृत (Liver) और पैंक्रियाज आदि भी पूर्णरूप से स्वस्थ और क्रियाशील रहते हैं।

वैसे तो हमारे योग शास्त्रों में लाखों प्रकार के योगासनों का वर्णन है, लेकिन इनमें से 84 आसन प्रमुख माने जाते हैं। हम यहां केवल सात योगासनों के विषय में बताएंगे जो कि प्राणायाम के साथ— साथ एक सहज श्रृंखला (Package) के रूप में अपनाए जाने चाहिये अलग से नहीं।

योगाभ्यास — कुछ निर्देश और सावधानियां

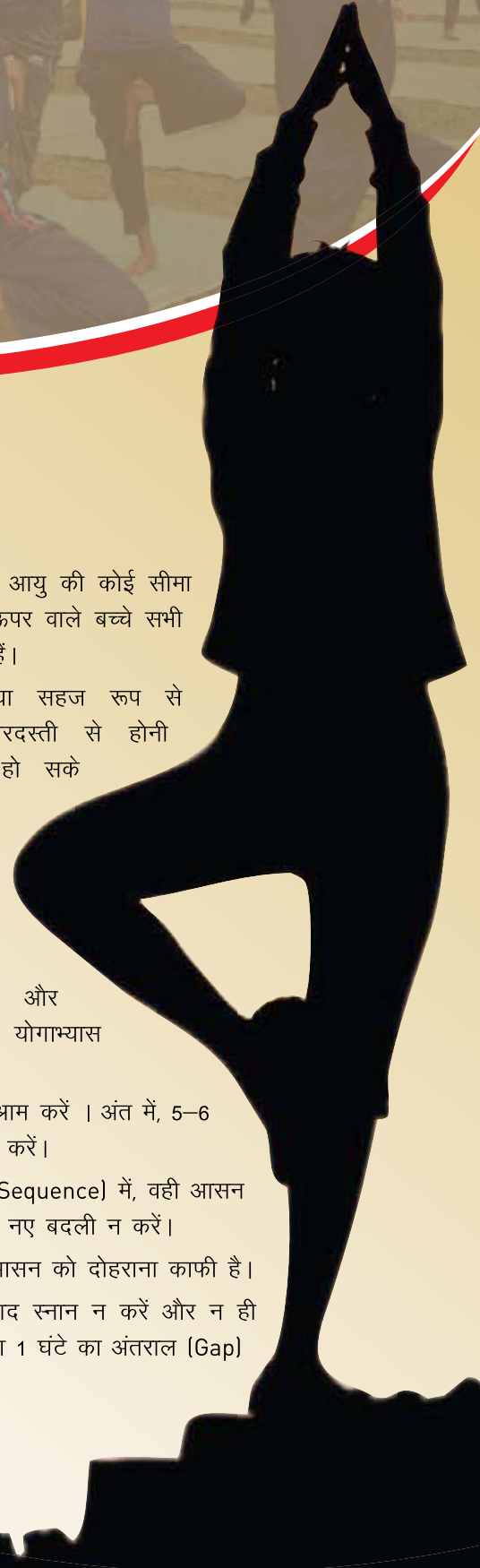
— योगाभ्यास रोज, सुबह या शाम करना चाहिये।

सुबह ब्रह्ममुहूर्त (सूर्य उदय से लगभग 1 घंटे पहले)

अति उत्तम समय है। मुँह पूर्व या उत्तर की ओर रखना अच्छा है।

- ❖ पेट मल-मूत्र रहित होना चाहिये यानी खाली पेट।
- ❖ खाने के 5-6 घंटे बाद ही योगाभ्यास करना उचित होगा।
- ❖ साफ-सुथरे खुले स्थान में ही योग करना चाहिये।
- ❖ "शौच" का महत्व समझें और पहनावा साफ-सुथरा और ढीला तथा मौसम के अनुसार होना चाहिये। यदि हो सके तो स्नान करके योग करना चाहिये।
- ❖ भूमि पर बिठाने के लिये नर्म दरी या कंबल का प्रयोग करें।

- ❖ योगाभ्यास के लिए आयु की कोई सीमा नहीं। 10 वर्ष से ऊपर वाले बच्चे सभी आसन कर सकते हैं।
- ❖ आसन की प्रक्रिया सहज रूप से न कि जोर-जबरदस्ती से होनी चाहिये। जितना हो सके उतना करें।
- ❖ कमर पीछे मोड़ते हुए श्वास लें। आगे झुकते हुए साँस छोड़ें।
- ❖ आँख बंद रखें और अन्तर्मुखी होकर योगाभ्यास करें।
- ❖ थकने पर थोड़ा विश्राम करें। अंत में, 5-6 मिनट तक श्वासन करें।
- ❖ रोज एक ही क्रम (Sequence) में, वही आसन करें। हर रोज नए नए बदली न करें।
- ❖ तीन से पाँच बार आसन को दोहराना काफी है।
- ❖ आसनों के तुरंत बाद स्नान न करें और न ही खाना खाएं। लगभग 1 घंटे का अंतराल (Gap) देकर ऐसा करें।





शुभ और अशुभ

एक बार एक महिला ने स्वामी विवेकानंद से कहा, शस्वामी जी, कुछ दिनों से मेरी बायीं आंख फड़क रही है। यह कुछ अशुभ घटने की निशानी है। कृपया मुझे कोई ऐसा तरीका बताएं जिससे कोई बुरी घटना मेरे यहां न घटे। उसकी बात सुन विवेकानंद बोले, देवी, मेरी नजर में तो शुभ और अशुभ कुछ नहीं होता। जब जीवन है तो इसमें अच्छी और बुरी दोनों ही घटनाएं घटित होती हैं उन्हें ही लोग शुभ और अशुभ से जोड़ देते हैं। महिला बोली, पर स्वामी जी, मैंने अपने पड़ोसियों के यहां देखा है कि उनके घर में हमेशा शुभ घटता है। कभी कोई बीमारी नहीं, चिंता नहीं। जबकि मेरे यहां आए दिन कुछ न कुछ अनहोनी घटती रहती है। इस पर स्वामी जी मुस्करा कर बोले, शुभ और अशुभ तो सोच का ही परिणाम है। कोई भी ऐसी वस्तु नहीं है जिसे केवल शुभ ही शुभ या केवल अशुभ कहा जा सके। जो आज शुभ मालूम पड़ती है, वही कल अशुभ हो सकती है। जैसे एक कुम्हार ने बर्तन बनाकर सुखाने के लिए रखे हैं और वह तेज धूप की कामना कर रहा है ताकि बर्तन अच्छी तरह सूखकर पक जाएं, दूसरी ओर एक किसान वर्षा की कामना कर रहा है ताकि फसल अच्छी हो। ऐसे में धूप और वर्षा जहां एक के लिए शुभ है, वहीं दूसरे के लिए अशुभ। यदि वर्षा होती है तो कुम्हार के घड़े नहीं सूख पाएंगे और यदि धूप निकलती है तो किसान की फसल अच्छी तरह नहीं पकेगी। इसलिए व्यक्ति को शुभ और अशुभ का ख्याल छोड़कर केवल अपने नेक कर्मों पर ध्यान लगाना चाहिए। तभी जीवन सुखद हो सकता है। महिला स्वामी जी का आशय समझ गई।

प्रस्तुति : श्रीमती गायत्री कुकरेजा
राजभाषा विभाग

साभार : नवभारत टाइम्स, दिनांक: 18.07.2014



ऑयल में रोता हुआ भ्रष्टाचार

रवि कान्त मिश्र
गोपनीय (कार्यपालक) सचिव,
कार्मिक विभाग
ऑयल, निगमित कार्यालय, नोएडा

ऑयल से सीखों व्यवहार, करो कभी न भ्रष्टाचार ।
हाईड्रोकार्बन करे पुकार, भ्रष्टाचार मुक्त है ऑयल परिवार ।
दुलियाजान है शान ऑयल की, भ्रष्टचारियों की दिखे न झलकी ।
कसम तुझे है पाईपलाइन की, बचाओं ईंधन आने वाले कल की ।।
भ्रष्टाचारियों की एक न चलती, आयल मैनेजमेंट सबकी सुनती ।
भारत वासियों से है विनती, आयल से जुडकर करें उन्नति ।
सी.वी.ओ. सबको यही सिखाते, मत करना तुम भ्रष्टाचार ।
अगर नहीं मानोगे उनकी बातें, तो तुम जाओगे कारागार ।।
डी.जी.एच. को दिया है साथ, पी.सी.आर.ए. में भी है ऑयल के हाथ ।
नीची दृष्टि है यहाँ भ्रष्टाचारियों की नयन की, ऑयल ने की अर्जित शक्ति पवन की ।
सौर शक्ति से मिलाया है हाथ, देकर भ्रष्ट शक्तियों को मात ।
मंत्रालय का किया है नाम, ऑयल कर्मियों ने वहाँ करके काम ।।
ऑयल इण्डिया देश की शान है, ऑयल इण्टरनेशनल का विदशों में मान है ।
भ्रष्टाचारियों के झासों में न आयेगे, मेक इन इण्डिया को आगे बढ़ायेगे ।
भ्रष्टाचार को मिटाते जाएंगे, स्वच्छ भारत बनाते जाएंगे ।।
जय हिंद ।।

Conscience, the Defence Against Corruption

– Dr. A.P.J. Abdul Kalam

(Based on President Kalam's interaction with Jain Muni Acharya Shri Mahapragya on his 86th Birthday)

Conscience is the light of the Soul that burns within the chambers of our psychological heart. It is as real as life is. It raises the voice in protest wherever anything is thought of or done contrary to the righteousness. Conscience is a form of truth that has been transferred through our genetic stock in the form of the knowledge of our own acts and feelings as right or wrong.

Conscience is also a great ledger where our offences are booked and registered. It is a terrible witness. It threatens, promises, rewards, and punishes, keeping all under its control. If conscience stings once, it is an admonition, if twice, it is a condemnation. Cowardice asks, "Is it safe?" Greed asks, "Is there any gain in it?" Vanity asks, "Can I become great?" Lust asks, "Is there pleasure in it?" But conscience asks, "Is it right?" Why have we become deaf to its voice? Insensitive to its pricks? Callous to its criticism? The answer is corruption.

Corruption is an assault on consciousness. The habit of taking bribes and seeking favours has become very common. People holding important positions have developed inconsiderateness to their conscience. They pretend everything is all right. Do they not have an idea of the law of action and reaction? Have they forgotten how impressions of the subconscious mind and their force work? If you take bribes, your thoughts and actions are registered in the subconscious mind. Will you not be carrying forward your dishonesty to your next generations causing them great suffering? It is a painful reality that corruption has become a way of life affecting all aspects of living, personal as well as social. It is not merely the pecuniary corruption but other forms as well. Immoral ways of people holding high positions and handling power have taken away guilt from the minds of lesser mortals. What a dangerous situation? A great civilization is endangered.

A virtuous man alone can use the instrument of conscience. He alone can hear the inner voice of the soul clearly. In a wicked man this faculty is dead. The sensitive nature of his conscience has been destroyed by sin or corruption. Hence he is unable to discriminate right from wrong. Those who are leading organizations, business enterprises, institutions and governments, how can they be corrupt? Is it not wise to have a clean conscience and enjoy freedom from anxiety and all kinds of worries? If you do wrong actions and sinful deeds and treat them lightly today, you will not hesitate to perform serious crimes tomorrow.

If you allow one sin to enter and dwell in your conscience, you pave the way for the entry of thousand sins. Your conscience will become blunt and lose its sensitivity. The habit of doing evil deeds will pervade the whole body like the poison of a scorpion.

Do you know when you are corrupt, your children who are indeed enjoying the fruits of your corruption are mocking at you? After all they are well informed and knowledgeable. Your parental mask is too thin to hide the contempt of your children. You are no more the role model of your own children. Is this disgrace not enough? Our society is fast reaching a stage where the immunity of conscience of people holding positions of consequence is challenged by the corruption, as HIV would do to the body of an AIDS patient. The corruption has seeped into every stream of our life-blood. Can we save ourselves as a civilization?

Spiritual leaders have evolved morals, codes, and teachings of righteousness. Beautiful hymns, songs and prayers have been written and composed. But the annihilation of conscience by corruption appears frightening. Religion has not been effective in evoking conscience. Who then will? Can our conscience be redeemed?

A movement through the Foundation for Unity of Religions and Enlightenment of Citizenship (FUREC) against corruption has to be made as a new feature.

(Source: The Hindu)

CVC LOGO

The Central Vigilance Commission logo consists of a graphic representation of an eye encased within the letter "C". The eye represented in a pleasing blue colour is symbolic of the collective determination of the community to be vigilant against any erosion of rights through illegal and improper actions of public servants. Encased within the letter "C", the eye represents the Commission overseeing the vigilance administration in all public organisations and helping in arriving at quick and logical decisions in all vigilance cases.



The logo has been grouped positive and negative elements within it and the deliberate choice of the blue colour signifies an active, ever vigilance but positive and friendly central Vigilance Commission

HAPPY Diwali

from **TEAM VIGILANCE, OIL**



ऑयल इंडिया लिमिटेड

(भारत सरकार का उद्यम)

Oil India Limited

(A Government of India Enterprise)

Corp. Off.: OIL House, Plot Number 19, Sector 16A, Noida, District Gautam Budh Nagar, Uttar Pradesh 201301, India
Tel: +91 (120) 2488 333. Website : www.oil-india.com

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

Editors, InTouch