

# *Calyx*

2007-08

योजना भवन



In the Chair Hon'ble Speaker  
DISCUSSION UNDER RE...

*A Study Circle Activity  
S. P. College, Pune*



*The Study Circle (2007-08)*

*(From left to right) Pragya Gupta, Vice-Principal (Science) Dr. U. M. Sholapurkar,  
Principal Dr. M. A. Pendse, Suyash Kulkarni, Anjali Narayanankutty,  
Ankita Chandavarkar, Trupti Joshi, Swarnugsha Bhagwat, Rutuja Kadam, Sushma Abnave*

# **Calyx**

A STUDY CIRCLE ACTIVITY  
(2007-08)

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SIR PARASHURAMBHAU COLLEGE, PUNE.



*calyx n. tech. (pl. calyxes or calyces) a ring of leaves (sepals) which protects a flower before it opens and later supports the opened flower.*

*Calyx will always remain a base upon which beautiful thoughts and ideas blossom.*

# Editorial

Dear Readers,

It is with a sense of deep and personal contentment that I present to you the fourth issue of the student's magazine 'Calyx'. It goes without saying that a lot of time and effort have gone into its making. I sincerely hope that its perusal produces a commensurate amount of pleasure in the readers.

The magazine this year holds an interesting melody of articles. Also, barring two articles which can be said to be purely current, all of them show a concern with policy, action and application. You have nationalism, state social and economic policy for the poor and the marginalized, and music all cohabiting happily in the same space. Surely, the irony of this is not to be missed. But it should also be seen a pointer to the true nature of the experience and thought of the youth in today's world. All young people do not think alike. Their collective experience is by no means homogeneous.

Furthermore, even their individual experiences are by no means harmonious and free from contradictions in themselves. This is a truth which, I believe, has been reflected in the articles.

'Calyx' is a student's magazine in a broad sense. All academic, artistic and editorial efforts needed for its creation come from the students. So, it is truly *by* the students. It is also *for* the students, within that it offers them a space to express themselves freely and creatively on any plural, academic subject of their liking. The end result, however, is not intended for students alone, but for all interested folks.

I hope and believe that 'Calyx' will grow and improve with every passing year and be constantly enriched with fresher ideas and newer innovations. I hope also that the coming years will see the study circle becoming more active and foraying into many more fields of learning and doing.

**Suyash Kulkarni**

# Foreword

I am delighted to present the fourth issue of the Students' magazine 'Calyx'. The first three issues received special attention, applause and appreciation from all those who are interested in student-centered activities. This issue, like first three, is an outcome of the sustained, committed and creative efforts of students of the study circle group of our college. I have a deep sense of contentment in expressing my heartfelt appreciation for this amazing work. Well Done !

The publication of 'Calyx' is an experiment, an experiment designed to promote original thinking, to provide opportunity to intelligent students for self-learning, to instill research mentality in bright young minds and ultimately to make students realize their infinite potential. Calyx is a modest attempt in initiating a learning process outside the walls of a classroom. I am sure that students enjoy this 'academic space' and meaningfully use it to widen their horizons.

The students of the study circle enjoy freedom of selection and presentation of the topics. They also carry out all the editorial responsibilities. The chief editor and the leader of the group Mr. Suyash Kulkarni worked very hard. His meticulous and dedicated editorial work deserves a special mention. I wish all the success to the members of the study circle group. The interaction with the group has been a very memorable and fruitful experience. Also, I learned a lot from them.

I take this opportunity to thank Principal M. A. Pendse for his constant encouragement and support in bringing out the magazine. I gratefully acknowledge the help from all the teaching and non-teaching members of our college. It is pleasure to place on record my sincere thanks to Mr. Nagpurkar for his interest, innovative suggestions and fine printing.

**V. M. Sholapurkar**  
Vice-Principal

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सुषमा आबनावे

तृ. व. सा. (इतिहास विभाग)

हिंदुस्थानावर प्राचीन काळापासून परकीय आक्रमणे झाली, ती धर्मप्रसारासाठी व सत्ता, संपत्ती लालसेसाठी. इ.स.च्या ८व्या शतकात अरब आक्रमक सिंधपर्यंत आले. पुढे इ.स.च्या १३व्या शतकाच्या आरंभी तुर्कांनी दिल्ली येथे आपली सत्ता प्रस्थापित केली. तुर्कांनंतर काही काळ दिल्लीवर पठाणांची सत्ता राहिली. त्यानंतर १६व्या शतकात स्थापन झालेली मोगलसत्ता औरंगजेबाच्या काळापर्यंत प्रभावीपणे राहिली. १७व्या शतकात मराठा सत्तेची स्थापना झाली. पुढे मराठा सत्तेने मोगलांशी संघर्ष करित हिंदुस्थानात निरनिराळ्या प्रदेशांवरती आपला प्रभाव निर्माण केला. १८व्या शतकात प्रभावी असे मोगलसत्ता केंद्र राहिले नाही, म्हणून त्याचा फायदा घेऊन अयोध्या, हैदराबाद व बंगाल येथील नवाबांनी आपले स्वतःचे सत्ताकेंद्र निर्माण करण्याचा प्रयत्न केला. १७व्या शतकामध्ये मोगलांच्याविरुद्ध शिखांचा संघर्ष चालूच होता. औरंगजेबाच्या मृत्यूनंतर शिखांनी संघटित होऊन आपले स्वतंत्र अस्तित्व निर्माण केले. १७व्या शतकाच्या आरंभी प्रायतः व्यापाराच्या उद्देशाने आलेल्या ईस्ट इंडिया कंपनीने आपले व्यापारी हितसंबंध वाढवीत, त्याच काळात भारतात व्यापारासाठी आलेल्या फ्रेंचांशी १७४८ ते ६० यादरम्यान संघर्ष केला व त्यात त्यांनी फ्रेंचांवर मात केली व नंतर मोगलांशी केलेल्या १७५७ प्लासीची लढाई व ऑक्टो. १७६४ च्या बक्सारच्या लढाईनंतर बंगाल व द. भारतात आपल्या सत्तेचे बीजरोपण केले. पुढे ब्रिटिशांनी म्हैसूरच्या प्रथम हैदरअलीविरुद्ध व नंतर टिपूसुलतानविरुद्ध संघर्ष करित कर्नाटकात आपल्या सत्तेची स्थापना केली. तसेच मराठ्यांच्याबरोबरही तीन युद्धे करून पुढे १८१८ मध्ये त्यांनी मराठा सत्तेचा शेवट घडवून आणला. १८४५-४९ या काळात ब्रिटिशांनी शिखांचे साम्राज्यही संघर्ष करित संपुष्टात आणले.

अशा रीतीने ब्रिटिशांनी संपूर्ण हिंदुस्थान आपल्या प्रभुत्वाखाली आणला. यावर वासुदेवशास्त्री खरे हे आपले वस्तुस्थितीनिर्देशक मत मांडतात की, “देशाभिमानशून्यता, समूहरूपाने कार्य करण्याची नालायकी, स्वार्थसाधनाची हाव, आळस, हेळसांड, दुसऱ्यांच्या ओंजळीने पाणी पिण्याची सवय इत्यादी दुर्गुण त्यावेळेस समाजामध्ये होते आणि त्यामुळेच नाश ओढवला. कोणतेही पौर्वात्य राष्ट्र सुधारलेल्या पाश्चात्य राष्ट्राशी विरोध करताना टिकाव धरू शकत नाही. हिंदुस्थान जर इंग्रजांनी घेतले नसते, तर फ्रेंचानी घेतलेच असते. प्रवाहात पडलेली भांडी एकमेकांवर आदळली असता, त्यांतले कोणते भांडे फुटणार ? मातीचे की लोखंडाचे हे ठरलेले आहे.”

१८५७ च्या उठावामध्ये नाममात्र अस्तित्व असलेला मोगल बादशाहा, सत्ताहीन पेशवा, लहान-लहान प्रदेशांतील राजे, नवाब, संस्थानिक व जहागिरदार हे उठावामध्ये प्रामुख्याने धुरीण होते. याचे कारण ब्रिटिशांनी यांचे राजकीय अस्तित्व प्रभावहीन केलेले होते, यांचा प्रदेश गेलेला होता. यांचे मानमरातब, नामाभिदाने गेलेली होती व याबरोबर संपत्तीही गेलेली होती. ब्रिटिशांनी

आपले प्रभुत्व त्यांच्यावर लादल्यानंतर तेथे फार मोठी कपातही घडून आली व या सैन्याचे उपजीविकेचे साधन काढून घेतले गेले व हे सैनिक शेतीकडे वळले. शेतीला हा त्यांचा भार अधिक झाला. ब्रिटिशांचे महसूल धोरण हे जाचक होते. शेती उत्पन्नातील जास्तीत जास्त वाटा घेण्याच्या दृष्टीने त्यांनी महसूल धोरण आखलेले होते. शेतकऱ्यांना महसूल हा रोख रक्कमेमध्ये भरावयाचा होता. त्यासाठी चलनामध्ये सुधारणा झालेल्या नव्हत्या. अधिक व्याजाने पैसे काढून त्यांना महसूल भरणे भाग पडत होते. त्यामुळे शेतकऱ्यांच्या मनामध्ये फार मोठा असंतोष ठिकठिकाणी खदखदत होता. अयोध्या प्रांतामध्ये हा असंतोष अधिक तीव्र होता. म्हणून उठावामध्ये महसूल अधिकारी, त्यांच्या कचेऱ्या, दफतरे यावर उठाववाल्यांनी हल्ले केलेले होते. साहजिकच सैन्यातील असंतोषाबरोबर शेतकऱ्यांच्यामधील असंतोष हा तीव्र होता.

१८व्या शतकात इंग्लंडमध्ये झालेल्या औद्योगिक क्रांतीमुळे कच्च्या मालाचा सतत पुरवठा व पक्क्या मालासाठी चांगली बाजारपेठ असणे, गरजेचे होते. ब्रिटिशांनी खुले व्यापारी धोरण स्वीकारले. इंग्लंडमध्ये औद्योगिक क्रांतीतून तयार झालेल्या मालाबरोबरच्या स्पर्धेत येथील उद्योग तग धरू शकले नाहीत. विशेषतः बंगालमध्ये विणकर, कारागिरांचा वर्ग जमिनदोस्त झाला. उपजीविकेचे अन्य साधन नसल्याने तेही शेतीकडे वळले.

ब्रिटिशांनी अशी ही जी आर्थिक धोरणे स्वीकारली होती, त्याचा परिणाम म्हणजे या देशातील संपत्तीचा ओष वेगाने इंग्लंडकडे जात राहिल्याने देशातील दारिद्र्य वाढत राहिले. भारतात दुष्काळ व दारिद्र्याचा प्रश्न अधिक तीव्र झाला. या परिस्थितीचा उल्लेख दादाभाई नौरोजींनी आपल्या 'पॉवर्टी अँड अनब्रिटिश रूल इन इंडिया' ह्या पुस्तकातही केला आहे. याचबाबत दादाभाईंची 'ड्रेन थिअरी' (संपत्तीचा निचरा) प्रसिद्ध आहे.

अशी एकूण भारताची परिस्थिती होती, हे लक्षात न येण्यापाठीमागची कारणमीमांसा करताना राजवाडे असे लिहितात की,

“सर्व दर्जांच्या लोकांत चलबिचल झाली; परंतु समाजात होत असलेल्या या अफाट क्रांतीची परीक्षा करून ती थोपविण्याचे कोणीच लक्षात आणले नाही. तत्कालीन समाजाचे चरित्र, समाजाच्या धडपडीचा कार्यकारणसंबंध अथवा समाजाचे शास्त्र व तत्त्वज्ञान ह्यांपैकी कशाचाही पत्ता ह्या चाळीस वर्षांत नव्हता. विचारी व तत्त्वजिज्ञासु जे एकदेशी साधुसंत व विरक्त, ते संन्यासाच्या अभ्यासात गर्क झाले होते आणि प्रपंचाची धडपड करणारे राजे, संस्थानिक, व्यापारी, उदमी, मुत्सद्दी व कारकून तत्कालीन धडपडीचा अर्थ न कळल्यामुळे कोठेतरी व कसेतरी मोहाने अंध होतसाते प्रपंचाचे, समाजाचे व राष्ट्राचे गाडे हाकीत होते. 'विवेकभ्रष्टांना भवति विनिपातः शतमुखः' आपणा करतो आहो काय व चाललो आहो कोठे ह्याचा ज्यांना नीट उलगडा करण्याची आवश्यकता भासली नाही, त्या मोहाग्ध लोकांना राष्ट्र कोठले; प्रपंच कसचा व इतिहास काय करावयाचा !!”

तसेच कार्ल मार्क्स आपल्या १८५३ मध्ये लिहिलेल्या 'इ ईस्ट इंडिया कंपनी - इट्स हिस्ट्री अँड रिझल्ट्स्' या लेखसंग्रहात लिहितो की, 'भारतावरती आपले राजकीय प्रभुत्व प्रस्थापित

केल्यानंतर ब्रिटिशांनी जी धोरणे अवलंबिली त्याचे भारतीय समाजावर खोलवर परिणाम झाले, त्यांचे म्हणणे असे की, ब्रिटिशांच्या या धोरणांमुळे हिंदुस्थानामध्ये सामाजिक क्रांती घडून येत आहे. म्हणजे ब्रिटिशांनी हिंदुस्थानावर आपले राजकीय प्रभुत्व निर्माण केली. त्यांनी आपली साम्राज्यवादी उद्दिष्टे साध्य करण्यासाठी जी धोरणे अवलंबिली, त्याचा या समाजावर खोलवर परिणाम झाला, ही गोष्ट स्पष्ट होते. या विरोधामध्ये येथील लोकांनी ठिकठिकाणी, वेगवेगळ्या वेळी, वेगवेगळ्या परिस्थितीमध्ये आपला असंतोष व्यक्त केला. यातील सर्वांत मोठा असंतोष हा १८५७ च्या घटनेत दिसून येतो.

ब्रिटिशांच्या विरोधी हा जो १८५७ चा उठाव घडून आला, त्याचे वर्णन राष्ट्रीय स्वातंत्र्ययुद्ध असे केले जाते. या उठावामध्ये ज्या सर्वांनी भाग घेतलेला होता, त्यांच्या बाबतीत एक गोष्ट स्पष्ट होती, त्यांना ब्रिटिशांचे वर्चस्व नको होते. ब्रिटिशांनी त्यांचे अस्तित्व संपुष्टात आणलेले होते. त्यांना ब्रिटिशांच्या वर्चस्वामधून स्वतंत्र व्हायचे होते. या अर्थाने त्यांचा संघर्ष हा ब्रिटिशांपासून स्वातंत्र्यप्राप्तीचा संघर्ष होता, मात्र या उठावाच्या पाठीमागे जे 'राष्ट्रीय' असे विशेषण वापरले जाते त्याच्या मर्यादा लक्षात घेणे आवश्यक आहे. यावेळी भारतातील परिस्थिती अशी होती, की येथे मोगल, मराठा, जाट, शीख, रजपूत होते; परंतु येथे 'भारतीय' म्हणता येईल, असे काही नव्हते. भारतीय राष्ट्रवाद ही वेगळी प्रक्रिया आहे. या प्रक्रियेला १९व्या शतकामध्ये वेगळा अर्थ प्राप्त होतो. त्या भारतीय राष्ट्रवादाच्या जडणघडणीची प्रक्रिया वेगळी आहे. उठाव व्यापक होता. समाजातील निरनिराळ्या स्तरातील लोक त्यामध्ये सहभागी होते, असे असले तरी, त्याला राष्ट्रीय उठाव म्हणता येईल, या बाबतीत मतभेद होऊ शकतात; पण एक गोष्ट नक्कीच, हा उठाव शिपायांपुरताच मर्यादित नव्हता.

१८व्या शतकात जगाच्या इतिहासामध्ये दोन महत्त्वाच्या राज्यक्रांती घडून आल्या. अमेरिकन राज्यक्रांती व फ्रेंच राज्यक्रांती. या क्रांतींचा अभ्यास करताना, ज्यास राजकीय क्रांती म्हणतात, त्यांचे स्पष्टीकरण आपणास असे देता येईल की, जेव्हा एक राजकीय घटना घडते त्या घटनेने मोठी उलथापालथ घडवून आणली जाते आणि या घटनेचे इतके असाधारण परिणाम घडून येतात की, ज्यामुळे या घटनेपूर्वीची राजकीय, आर्थिक, सामाजिक व्यवस्था पूर्वीसारखी राहत नाही. या सर्व क्षेत्रामध्ये मोठी उलथापालथ (परिवर्तन) घडून येते. याची सुरुवात राजकीय घटनेने होते व त्याचे समाजाच्या सर्व क्षेत्रांवर मूलभूत स्वरूपाचे परिणाम झालेले दिसतात. म्हणून या सर्व उलथापालथीला राजकीय क्रांती असे म्हणतात.

इ. स. १७७६ मध्ये अमेरिकेने ब्रिटनविरुद्ध आपले स्वातंत्र्य जाहीर केले. त्यासाठी संघर्ष केला व स्वातंत्र्य मिळविले. हा संघर्ष कशासाठी होता, त्याची उद्दिष्टे कोणती होती, यासाठी हे आपणास थॉमस जेफरसनने तयार केलेल्या स्वातंत्र्याच्या जाहिरनाम्यातून स्पष्ट होते. यामध्ये त्यांनी मानवाचे जीवित, लिबर्टी आणि मानवी सुखाचा शोध घेण्याचा अधिकार हे आपले मूलभूत हक्क आहेत व त्यासाठीचा हा संघर्ष आहे, हे स्पष्ट करण्यात आलेले होते.

इ. स. १७८९ मध्ये फ्रेंच राज्यक्रांतीने स्वातंत्र्य, समता आणि बंधुता या तीन तत्त्वांचा उद्घोष केला. या क्रांतीने फ्रान्समध्ये अशी उलथापालथ झाली होती की, ४ ऑगस्ट १७८९ च्या काढलेल्या आज्ञांनी फ्रान्समध्ये अभूतपूर्व क्रांती घडवून आणली. या आज्ञांनी सरंजामशाहीचे उरले-सुरले अवशेष नष्ट करण्यात आले.

या क्रांत्यांतून आपल्याला समाज कसा निर्माण करावयाचा होता, कोणत्या तत्त्वांवर तो तयार करावयाचा होता, ती त्यांची दृष्टी स्पष्ट होते. १८५७ च्या उठावाचे धुरीण होते, त्यांच्याजवळ अशी कोणतीही दृष्टी नव्हती. नवसमाज निर्माण करण्याच्या दृष्टीचा अभाव त्यांच्याजवळ होता, एका अर्थाने आपणास असे म्हणता येईल की, ब्रिटिशांच्या धोरणांनी मध्ययुगीन व्यवस्थेचे विसर्जन करण्याची प्रक्रिया आरंभिलेली होती. या प्रक्रियेमुळे अनेकांचे जीवन उध्वस्त झालेले होते. या मध्ययुगीन विसर्जनाच्याविरुद्धचा हा उठाव होता, असे या उठावाचे वर्णन करता येईल.

२२७३२२

### संदर्भग्रंथ :

- १) आधुनिक भारताचा इतिहास - आचार्य जावडेकर
- २) नौरोजी ते नेहरु - गोविंद तळवलकर
- ३) आनंद हर्डीकरांचे 'स्वातंत्र्याची नोंदवही' या लेखसंग्रहातील काही लेख
- ४) आधुनिक भारताचा इतिहास - कुलकर्णी, पाटील, देशपांडे

# *Indo -U.S. Nuclear Deal*

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## ***Agreement for Cooperation between The Govt of India and The Govt of the United States of America Concerning Peaceful Uses of Nuclear Energy***

In a clear sign of broad bipartisan support the India-US Civil nuclear deal enjoys in the US and the administration's commitment to it, both chambers of the US Congress approved the Henry J. Hyde United States-India Peaceful Atomic Energy Cooperation Act of 2006 on 9 December 2006, just before it ended its lame-duck session. The Act would reopen doors of Nuclear commerce between the US and India after a gap of three decades.

The historic nuclear bill was signed into law by US President George Bush on 18 December 2006.

The House of Representatives had endorsed it with overwhelming 330-59 margin on 8 December overcoming some last-ditch opposition from a few hawkish Democrats.

With the amendment to the US Atomic Energy Act 1954 becoming law, all eyes were on the bilateral civil nuclear cooperation agreement between India and the US. Two rounds of negotiations on the '123 bilateral agreement'-the sole binding document that define terms of nuclear commerce between the US and India-and a third launched in January 2007.

The 123 agreement will have to be endorsed by both chambers of the US Congress before the US can commence its civil nuclear cooperation with India.

The 45-nation Nuclear Supplier's Group(NSG), which regulates nuclear trade, must also change its rules to allow nuclear transfers to India; and India must negotiate India-specific safeguards with the International Atomic Energy Agency(IAEA).

### **KEY PROVISIONS OF US Legislation**

# The Henry J Hyde United States-India Peaceful Atomic Energy Cooperation Act of 2006 carves out an exemption in American Law for Civilian nuclear trade, in exchange for Indian safeguards and inspections at 14 civilian nuclear plants in the country. Eight military plants would remain off-limits.

# In the binding sections, the bill asks the President to present to the Congress a summary of the plan provided by India to US and IAEA to separate civilian and military nuclear facilities, materials and programmes.

# He has also to inform it of the steps taken by India to work with the US for the conclusions of a multilateral treaty banning production of the fissile material for nuclear weapons.

# The President has to report on the steps the US has taken and will take to encourage India to identify and declare a date by which it will be willing to stop fissile material for nuclear weapons unilaterally or pursuant to a multilateral moratorium or a treaty and prevent the spread of nuclear-related technology.

# The President has been asked to report on the steps India is taking to secure materials and technology applicable for the development, acquisition or manufacture of Weapons of Mass Destruction and the means to deliver them by applying comprehensive export control legislation and regulations.

# He will provide a description of the steps taken to ensure that the proposed deal does not in any way assist India's nuclear weapons programme.

# Under the accountability programme, the President has to ensure measure to put in place a detailed system of reporting and accounting for technology transfers, including any re-transfer to India.

# The nuclear technology identified for transfer will not be re-transferred without prior US consent.

# Facilities, equipment or materials derived from the transferred technology will not be transferred without prior consent of the US.

# The President will report to Congress any material non-compliance by India with the non-proliferation commitments undertaken in the July 18, 2005 Joint Statement, the separation plan presented to the Indian Parliament, the safeguards agreement and the additional protocol between India and the IAEA.

# The bill calls for termination of nuclear and nuclear related materials and equipment or technology if there is any materially significant transfers by an Indian with the Knowledge of the Govt.

# Section 106 says all waives given under the bill will cease to be effective if the President determines that India has detonated a nuclear explosive device after enactment of the law.

# It will secure India's active participants in US efforts to dissuade, isolate and, if necessary, sanction Iran in its efforts to acquire weapons of Mass Destruction.

# The bill states that it is the sense of Congress that the US should not seek to facilitate or encourage the continuation of nuclear export to India by any other party if such exports are terminated under United States law.

# The US will seek to halt any increase in nuclear arsenals in South Asia and promote their reduction and eventual elimination.

# The US will ensure that the spent fuel generated in India's civilian nuclear power reactors is not transferred to the US except pursuant to the Congressional review procedures required under the Atomic Energy Act.

# The US will encourage India to refrain from increasing its production of fissile material at unsafe-guarded nuclear facilities.

# Ensure that any safeguards agreement or Additional Protocol to which India is party with IAEA can reliably safeguard any export or re-export to India of any new nuclear materials.

# Any nuclear reactor fuel reserve given to India for safeguard civilian nuclear facilities should be commensurate with reasonable reactor-operating requirements.

# The President will determine that India has provided the US and IAEA with credible plan to separate civil and military nuclear facilities and has filed a declaration regarding its civil facilities and materials with the IAEA.

### **Bush Allays Concerns**

In a statement issued after he signed into law the Henry Hyde Act on December 18, 2006, President George Bush asserted that his approval of the Act "does not constitute my adoption of the statements of policy [made in Section 103 of the Act] as U.S. foreign policy". He also said that his administration would "construe section 104(d)(2)" of the Act as advisory.

"The executive branch shall construe provisions of the Act that mandate, regulate, or prohibit submission of information to the Congress, an international organization, or the public, such as section 104, 109, 261, 271, 272, 273, 274, and 275, in a manner consistent with the President's constitutional authority to protect and control information that could impair foreign relations, national security, the deliberative processes of the Executive, or the performance of the Executive's constitutional duties", he said in the statement.

### **The Deal's Progress**

Immediately after the landslide victory of the Democrats, there was considerable speculation in the United States and India about the fate of the "nuclear deal" between the two countries. President George W. Bush had touted the deal as one of his biggest foreign policy achievements and pledged to see it through Congress and the Senate.

The Bush administration's conduct of foreign policy was the major issue for the Democrats on the campaign trail. Besides, the Democratic Party has many Representatives and Senators with strong views on the issue of nuclear non-proliferation.

## THE SEPARATION PLAN

Prime Minister Dr. Manmohan Singh gave out the salient points of the Separation Plan in a suo moto statement in Parliament on 7 March 2006. The following are the salient points of the Separation Plan :

India is preparing a list of 14 nuclear reactors which will be offered for IAEA safeguards between 2006-14 in a phased manner. This would raise the total installed thermal power capacity in Megawatt under safeguards from 19% at present to 65% by 2014. There are 22 thermal power reactors in operation or currently under construction in the country.

- India will not accept safeguards on the Prototype Fast Breeder Reactor (PFBR) and the Fast Breeder Test Reactor (FBTR), both located at Kalpakkam. The Fast Breeder programme is at the R & D stage. This technology will take time to mature and reach an advanced stage of development.
- India has decided to place under safeguards all future civilian thermal power reactors and civilian breeder reactors. New Delhi retains the sole right to determine such reactors as civilian. This means that India will not be constrained in any way in building future nuclear facilities - civilian or military.
- Reprocessing and enrichment capabilities and other facilities associated with the fuel cycle for the country's strategic programme have been kept out of the Separation Plan.

The Prime Minister dwelt at length on a major concern of the Indian strategic and scientific establishment : how to ensure uninterrupted supply of fuel for its nuclear reactors.

Currently, 15 thermal reactors together have an installed capacity of 3,310 MWe of which four TAPS -1 & 2 (160 MWe each) at Tarapur and RAPS - 1 & 2 (100 and 200 MWe respectively) at Rawatbhatta - are already under safeguards. Seven reactors, with a total capacity of 3,420 MWe, are in different stages of construction of which Koodankulam - 1 & 2 (1,000 MWe each) will come under safeguards on commissioning. That is, a total of 2,620 MWe of the total installed capacity of 6,730 MWe is already under safeguards. All the under-construction reactors would be commissioned between 2007-08.

A fair guess is that 65 per cent of the total capacity of 22 reactors amounts to about 4,375 MWe. Given that 2,650 MWe capacity is already under safeguards, about 1,755 MWe more need to be brought under safeguards. Since 540 MWe PHWRs are explicitly ruled out, the operational TAPS-4 and under construction TAPS-3 will be off safeguards. So, that balance is easily achieved by placing eight 220 MWe PHWRs (total 1,760 MWe) under safeguards. Three possibilities arise : (1) All eight operational ; (2) Six operational + two under construction; or (3) Four operational + four under construction.

Now, one of the principles of separation that have been followed is to designate an entire hub of strategic importance as military even if it concluded facilities that are not normally engaged in strategic activities. This implies that MAPS - 1 & 2 at Kalpakkam will be off safeguards.



In his first press conference after the polls, Bush emphasised that the “nuclear deal” was being given top priority in the “lame duck” session of the Congress. The house of representatives had cleared the proposed Bill in June 2006. Three more steps remained for it to become legal. The first of these was passing it in the Senate. After the loss of Republican control over both the Houses, there were doubts about whether the issue would figure in the crowded agenda. Some legislators had called for a postponement of the vote until the new Congress convened in January 2007. Such a move would have meant starting the whole legislative process from scratch.

Things looked grim from New Delhi’s standpoint for a brief period, when the “lame duck” session of the Senate rebuffed Presidents Bush’s plea to approve the proposal to grant Vietnam permanent normal trade relations. Vietnam, along with India, is among the countries Washington is wooing as part of its plan of building an anti-China coalition.

The Congressional Research Service prepared a report that questioned India’s non-proliferation record and commented adversely on India’s relationship with Iran. U.S. experts on non-proliferation once again issued statements warning that the exception being made in the case of India would make it difficult for the U.S. to deal with countries like North Korea and Iran.

Bush had assured Manmohan Singh on phone that he would press for a quick passage of the Bill in the Senate after the congressional elections. To the relief of the Indian government, when the nuclear deal came up for a vote in the Senate it came to be viewed as a bipartisan issue, with leading Democratic Senators emerging as the biggest champions of enhanced relations with India. Among them was Senator Joseph Biden, the new chairman of the Senate Foreign Relations Committee.

On November 16, the Senate approved the deal 85-12 on cooperating with India. Bush hailed the passage of the Bill, adding that it would bring India into “the non-proliferation mainstream”.

### **“Killer” Amendments Rejected**

Five “killer” amendments that had the potential to wreck the India-United States civilian nuclear deal, including one that sought a cap on fissile material production, were defeated in the U.S. Senate, which overwhelmingly approved the accord. Wisconsin Democrat Russ Feingold proposed an amendment that required a precondition of Presidential determinations that the nuclear cooperation did nothing to assist, encourage or induce India to manufacture and acquire nuclear weapons or other nuclear explosive devices. The amendment was defeated by a margin of 71 votes to 25 votes, after a spirited debate on the floor involving Chair of the Senate Foreign Relations Committee Richard Lugar. Another amendment proposed by California Democrat Barbara Boxer required India to suspend military cooperation with Iran and was defeated by a bipartisan vote of 59 votes to 38 votes.

Democrat Jeff Bingaman also moved an amendment that sought to link nuclear exports to India to a Presidential determination that New Delhi had halted production of fissile materials. It was rejected by a margin of 73 to 26.

The Feingold Amendment stated that India could not use or replicate and subsequently use 'U.S. - made "equipment, technology or nuclear material in an unsafe-guarded facility or nuclear weapons related complex" or for any activity related to the research, development, testing or manufacture of nuclear devices.

However, Mr. Lugar stressed the amendment was "truly a killer amendment" that, if passed, would force the renegotiation of the agreement or make implantation "impossible". He also pointed out that a similar amendment offered by Senator Feingold at the Committee Markup was defeated by a margin of 13 to 5.

The Boxer Amendment required India to "suspend military-to-military cooperation with Iran, including training exercises until such time the Government of Iran no longer supports act of international terrorism as determined by the Secretary of State ....."

Mr. Lugar acknowledged that Iran was a "destabilising force," but argued that the amendment was a "killer amendment that would require renegotiation of the nuclear deal."

Intervening in the debate, Senator Joseph Biden said that while lethal weaponry cannot be supplied to Iran, India had voted to sanction it at the International Atomic Energy Agency. He also said Washington would be in a difficult position if New Delhi asked the U.S. to stop dealing militarily with Pakistan. By way of assuring Ms. Boxer, he said that the civilian nuclear deal would be "gone" if anything surfaced of India dealing with Iran in nuclear weapons or sensitive technologies.

The amendment proposed by Mr. Bingaman, calling for a verifiable fissile material cut-off treaty prior to the shipment of fuel and equipment, apart from the Presidential determination, was characterised as a "killer" condition by Mr. Lugar, who said it imposed an unacceptable precondition. "India will regard this as moving the goal posts, an unacceptable renegotiation of the deal and a bad faith effort on our part. As a consequence this is a deal killer," he said.

The other two amendments rejected were proposed by Democrat Senator, Byron Dorgan. His first amendment, rejected by a vote of 71 to 27, has proposed that the U.S. administration continue to support a U.N. resolution adopted after India's nuclear tests in 1998, asking New Delhi to stop producing fissile material for nuclear weapons and cap its nuclear weapons programme.

Mr. Dorgan's second amendment, rejected by a voice vote, pertained to the President making a determination to Congress that India has committed all reactors supplying electricity under IAEA inspections regime,

a binding obligation on India not to assist, induce or encourage non-nuclear weapons states to manufacture or acquire nuclear weapons and a Presidential determination that India is reducing stockpiles.

### **Indian Scientists' Concerns**

Top Indian nuclear scientists met on 15 December and expressed fears that India would lose freedom to decide on strategic choices. For instance weapon tests would invite actions that could make imported reactors non-functional. India's stand on N-disarmament would get compromised and subservient to US goals.

External Affairs minister Pranab Mukherjee asserted in Parliament that India would stick to its declared stand on voluntary moratorium, but it would keep its options open on conducting nuclear tests if the national interest and priority required.

### **Concern Over Restraints**

Certain key provisions in the Act run counter to the understanding reached between the American President and Prime Minister Dr. Manmohan Singh in their July 18, 2005 joint statement that set the framework of cooperation.

The July 18 had envisaged a "full" civil nuclear cooperation arrangement between the countries as equal partners. Consider the following provisions in the July 18 statement:

"President Bush .... Stated that as a responsible state with advanced nucleus technology, india should acquire the same benefits and advantage other such states."

"The President would also seek agreement from congress to adjust US laws and policies, and the United States will work with friends and allies to adjust international regimes to enable full civil nuclear energy cooperation and trade with India,,,"

"The Prime Minister conveyed that from his part, India would ....acquire the same benefits and advantages as other leading countries with advantages nuclear technologies, such as the United States."

Yet, India is virtually relegated to the position as a second grade partner for the proposed cooperation, More significantly, the partnership will be virtually confined to nuclear trade and not much of cooperation.

Notwithstanding the declared objective of allowing India to have full civil nuclear energy cooperation with the US and other members of the NSG, the act makes it very clear that the country will continue to be subject to a regime of nuclear denial.

In para 5 of section 103 under the statements of policies in the Act that underlines objectives behind the move to amends the US

Atomic Energy Act of 1954 for nuclear cooperation with India, it is categorically stated that neither the US nor other NSG countries should supply India with "sensitive" nuclear technologies or material.

"Given the special sensitivity of equipment and technologies related to the enrichment of Uranium, the reprocessing of spent nuclear fuel, not the production of heavy water, (the US will) work with members of the NSG, individually and collectively, to further restrict the transfer of such equipment and technologies, including to India."

Perhaps, all that the bill envisages as the supply of nuclear reactors and fuel to India which essentially would mean nuclear business.

In the Indo-US joint statements of July 18, 2005 and March and March 2, 2006, in exchange for the US ensuring the lifting of all obstacles to "full civil nuclear energy cooperation," India undertook seven specific commitments. They were energy cooperation," India undertook seven commitments. They were

separating its civil and military nuclear facilities;

Voluntarily placing the former under International Atomic Energy Agency (IAEA) safeguards;

Accepting an additional protocol with respect to civilian nuclear facilities;

continuing India's unilateral moratorium on nuclear explosive testing;

Working with the U.S. for the conclusion of a multilateral Fissile Material Cut Off Treaty (FMCT);

Refraining from the transfer of enrichment and reprocessing-technologies to states that do not have them and "supporting international efforts" to limit their spread; and

Ensuring that necessary steps have been taken to secure nuclear materials and technology through comprehensive export control legislation and through harmonization and adherence to Missile Technology Control Regime (MTCR) and NSG guidelines.

The March 2 statement took note of India's separation plan drawn up in consultation with the U.S. and added an eighth commitment – that IAEA safeguards on civilian nuclear facilities would remain in place in perpetuity. In exchange for this commitment, which was not made in the July 18 agreement, India received assurance that its civilian facilities thus safeguarded would be guaranteed access to uninterrupted fuel supplies.

When it became clear that the legislation in process in the U.S. Congress deviated significantly from Washington's commitments, strong objections and concerns were raised by scientists, political parties, and in the media. In response, the Prime Minister made a clear and forthright statement in the Rajya Sabha on August 17. In effect, he drew red lines the U.S. should not expect India to cross. While the Bill, in its final form, was a substantial improvement on the earlier Senate and House versions,

problems and ambiguities remained – and it did appear that red lines had been crossed. The ‘extraneous’ provisions include blatant attempts to dictate Indian foreign policy on Iran, proliferation, disarmament, and certain other issues. Aside from these and some concerns over the annual certification and sequencing issues, three major difficulties will need to be addressed.

Prime Minister Singh assured Parliament that India would not settle for anything less than “full civil nuclear cooperation,” including access to enrichment and reprocessing technology as well as the reprocessing of spent fuel. While the Bill in its final form allowed for cooperation in this field in section 104(d)(4), there are three caveats India must not lose sight of. Reprocessing spent fuel resulting from imports from (or re-exports to) the U.S. will require case-by-case applications. Moreover, the legislation reiterates that it shall be the policy of the U.S. to work with other members of the NSG to restrict the export of enrichment and reprocessing technology and equipment to India. Finally, as the note on “Background and Need for the Legislation” attached to the final text of the Act itself states, it is standard practice to write the prohibition on the sale of enrichment and reprocess equipment and technology into the bilateral Nuclear Cooperation Agreement (the ‘123 agreement’) that the U.S. signs with prospective partners. In other words, the truth about the extent and scope of India’s access to international civilian nuclear cooperation will be known only when the 123 agreement is finalised. It does look highly unlikely that the amended NSG guidelines will allow India to have access to these technologies.

Secondly, the Prime Minister assured Parliament that India would not accept any “verification measures regarding our safeguarded nuclear facilities beyond those contained in an India-Specific Safeguards Agreement with the IAEA.” The senate’s earlier provision mandated intrusive fall-back safeguards in the event of the IAEA being unable to implement its safeguards agreement with India. The final legislation softens this language by demanding an “appropriate assurance that arrangements will be put in place expeditiously that are consistent with the requirements of section 123 1.(1) of the [Atomic Energy] Act... regarding the maintenance of safeguards...” However, even this coy provision seems to run counter to Dr. Singh’s assurance that India would not accept additional verification by American inspectors.

Thirdly, Dr. Singh said India had received assurance of uninterrupted fuel supplies as a condition for placing its civilian facilities under perpetuity safeguards and that the U.S. would assist India to source fuel in the event of a disruption. Not only does the reconciled legislation make no such provision; it actually specifies that U.S. policy shall seek to prevent the transfer to India of nuclear fuel and equipment from any other country if U.S. nuclear transfers to India are terminated for reasons specified in the Act or under any other U.S. law. It also carries forward the Obama

amendment opposing the possibility of India forming a strategic reserve of nuclear fuel in anticipation of supply disruptions. Fuel disruptions caused by an Indian nuclear test will not be covered by the deal. This negative provision in the Bill was an unwarranted intrusion into the sovereign decision-making power of the country.

### Why is the Deal Required?

Official estimates cite that India needs to boost nuclear power generating capacity from around 3,500 MW to 50,000 MW by 2030, and more than 200,000 MW in 2050. This will be small in context of overall requirement, but will comprise a vital clean-energy component in the energy mix. This can be achieved by ending India's isolation from the world's nuclear R&D and market.

Since the 1968 NPT, the US – through legislation and rules – has successfully blocked India's access to foreign nuclear technology. This was to prevent India making nuclear weapons led to an even tighter embargo. Countries like Russia and France, willing to bend the rules earlier, said they could no longer capabilities, in the NSG cartel have made it clear that they will realign their civil nuclear policies towards India only on the basis of the pact.

The power reactors of advanced countries have averaged 1000 MW in size for the past decade. The Indian standard is 220 MW, though now it has managed only 3,500 MW till 2006 instead of the promised 10,000 MW by 2000. There are reports that India lacks adequate natural uranium to fuel the new reactors.

The US is keen on developing closer ties with India for trade and political purposes. On July 18, 2005, the US, in a historic agreement with India, stood its traditional nuclear policy on its head: If India agreed to place under perpetual IAEA safeguards the nuclear reactors and establishments that were not needed for its military programme, the US would lift its embargo, even while seeking no restrictions on India's nuclear weapons capability.

The US is, perhaps, seeking this friendship to contain China but not in any conventional military way. The American economic engagement with China is greater than that it has with India. What the US seeks is to hedge its China commitments through deeper involvement with India, a country whose economy is next only to China in terms of potential and with whom it shares common political ethos.

Nothing will impede India's nuclear deterrent. With eight reactors, the Prototype Fast Breeder Reactor and India's biggest research centers at Kalpakkam and BARC, Trombay, kept out of the civil list, and hence any form of inspection, India has more than sufficient capacity to maintain its credible minimum deterrent.

RCRC

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# *Education - Learning*

Swarmugdha Bhagwat

S.Y.B.A. (Sanskrit Special)

According to Vedas and Upanishads, every living organism on the earth shows six stages of life. Viz. Birth, being into the existence, Growth, Change, Being diminished, death. Among these, Growth and change, these two stages are related with EDUCATION.

**GROWTH** -Here Growth consists of physical as well as socio-cultural Growth. When we think of it the first glimpse that comes into our mind is 'Learning- growth through learning.' And then automatically we start thinking on 'Education'. Our mechanical and weakened system of education starts showing its loop holes right from here. We can't understand that our generation, the youth of our country requires learning and not mere education. Moreover, as we have gone through the same education patterns, we can't accept that learning may exist outside the textbooks. Nature, inter-person interactions, day-to-day experiences, community, market, cultural programmes are nothing but media of learning. And formal, informal education should focus on the Learning. Let's have a look upon our own education.

In India, Education is generally divided into 5 stages -

1) Pre-primary (2) Primary (3) High-school (4) College education i.e. Bachelors (5) University education i.e. Masters.

As a college going student, I want to share some experiences. So, in present article, I am going to deal mostly with college level education.

**WE "LEARN" IN THIS WAY-** Imagining a lecture of any subject. Professor comes and starts dictating a matter from any book or guide. Students in front of him immediately start writing. Professor is not sure whether they are even listening. He teaches according to the weightiest of a chapter. So, teaching content varies as the weightiest of the chapter varies. Moreover, as per students' demand, time-to-time, lecturer provides them probable questions for the examination. At last, in the examination students go prepared without thinking, without understanding and without connecting with it.

Let's evaluate this process of learning. First of all, dictation-with or without- any kind of explanation-makes us neutral. By the method of dictation, though we study a particular subject for the whole year, we are unable to understand what it is all about. We can not relate with that subject.



Another method that we usually come across in the colleges is only 'Reading by lecturer'. If a lecturer goes on reading from a text book, why students will take efforts on thinking on their own?

What actually happen in these processes are students as well as teachers become handicapped. Because, there is no interaction or I would rather say, there is no 'Happening' between two groups. The whole process becomes mechanical and doesn't let students to explore the subject.

**FOOD FOR BRAIN** - As we all know, the function of the brain is 'to think.' It is an organ made for thinking. It needs raw material to work upon. So how does it work with ready made notes?

Students, like us, who are learning in our education system since years, can not find their brain at work.

Just go a little back! In our schools' science laboratory, we were used to be asked "to verify the Ohm's law." But never "to discover the Ohm's law." Same process is being continued in colleges. Somebody discovers, we just verify; somebody dictates, we just go on writing. Here, brain does not get its food for functioning.

In the process of learning brain and whole neural system function in following chain-process-

Listening/ watching- Thinking- Exploring- Understanding- Grasping- Co-relating with other circumstances- Reproducing.

If a single connection in this chain is missing, there are obstacles in Learning. In our learning process, we are lacking many of it. Because, we are limited with our textbooks.

"In the nature, if I find something new and different than textbook, and if I examine it on the basis of my intelligence, then what wrong is my textbook." – Dr. Anand Karve (Appropriate Rural Technology Institute-ARTI)

Every element in nature, in society is a medium of learning. Text books could be one of these media, but it is not the only medium from which we can learn. Societal experiences can give us the most appropriate and practical knowledge.

**LEARNING THROUGH EXPERIENCE**- Here, I want to point out the excellent education theory by Mahatma Gandhi called 'Nayee Talim.' It is based upon the principle stated above- 'Learning through experience'. He said- "Let children take experiences on their own." Right from childhood, we are collecting various experiences. Now 'college days' could be served as a time to implement those experiences while taking new ones. This is a period recheck our basis of values, ethics and mentality. We want our college teachers to let us build something new by using our potentials. We don't want an education which increases our needs and which makes us disabled day-by-day.

There is a need to change the situation and I feel, this is a moment from which we should start bringing change. For this, we require some steps- First one, my friends that is today's students should feel that there is something wrong in our learning process. We must examine it and we must modify it further.

Secondly, if teachers stop preaching and if my friends start questioning good, genuine questions, the out put of the education would be excellent.

Thirdly, every subject has its own aspects. Thus it is required to be taught by considering these aspects. For eg. Psychology needs 'Going to the people.' So, it should be learned by communication with different people.

Language needs 'speaking orientation.'

Like this, every subject can prove for the students, a new horizon for discoveries and not just a portion to be completed.

Fourth, and utmost important step is, at the age of 19-20, students should be able to evaluate themselves on the basis of their in-net, in-built characteristics. For eg. A student with linguistic intelligence shouldn't go for subject like Psychology or History. Instead, he could make better with languages. Here, what matters is 'Buniyadi Shikshan'- Childhood education. Students should be capable of examining their own plus and minus points. Teacher can help them in strengthening their plus points and in working hard on their weak points.

From my education, I am supposed to 'learn'and not to give examinations. My education should give me a new vision towards the world. And the most honest expectation from education is, it should give all of us a since of equality. We all are equal because we are getting the same knowledge from same nature !

☺☺☺

# *Pune Municipal Corporation*

## *Budget 2007 - 08*

Anjali Narayanankutty, Rutuja A. Kadam

TYBA (Economics)

It is said that for the development of the country , the development of each state as well as city is essential .Therefore, We living in Pune should start thinking about the development of the city because," CHARITY BEGINS AT HOME ".

### ● PURPOSE OF STUDY:-

1. According to some thinkers, in the near future, IT, Bio-Technology, Automobile related industries in the city would have an export of nearly 1.5 lakhs crore Rs.
2. It is predicted that 5 lakh employment opportunities with a salary of about 1 lakh per month would be created in the city.
3. Approximately 4 lakh students would come to Pune for education and this is likely to increase.

As the above mentioned factors are likely to increase in the near future and Pune would become the "CENTRE OF EXCELLENCE". Thus, attracting more and more, it is essential that one has to have a thorough analysis of "PUNE CITY".So; we have taken up the study of PMC Budget 2007-08.

### ● WHY 2007-08?

It is the end of fiscal year 2007-08 and the time when budget 2008-09 would be released. So, the basis of these 2 major components we would be analyzing the implementation as well as the success achieved by the Budget 2007-08.

In order, to keep the people of Pune, happy, healthy, prosperous and satisfied the necessary provisions of Housing, Water, Transport, Road, Financial Service, Education, Health, and Income Source , Environment, Hygiene, Entertainment,

Literature, Music, Art, Sports, Festivals, Trade & Commerce, Administration, Justice, and Internal Security etc. should be made mandatory .These provisions are well reflected in the budget.

Therefore, we need to clear our ideas about budget & its components. Therefore in short, a City's Budget estimates a cities development procedures as well as welfare of its citizens.

### ● WHAT IS A BUDGET?

A Budget maybe defined as a financial plan which serves as the basis for decision -Making and centre of expenditure and revenue for a specific period of time, normally a year i.e. fiscal year. Budget is the instrument through which the government controls the entire economy.

In the Constitution of India, a budget has been referred to as an annual financial statement of the estimated receipts & expenditure of the Government of India or a State Government, in respect of a financial year. From the estimates of revenue and expenditure one can judge the types of activities which the Government undertakes and the method of financing these activities.

A Budget can be "Surplus or Deficit". A Surplus Budget is one where the receipts are more than the expenditure whereas a Deficit Budget is one where the expenditures are more than the receipts.

● **ROLE OF A BUDGET:-**

Modern Budget plays a very important role in the social & economic life of the community. Government budgeting is one the major processes by which the budgeting the use of the public resources are planned and controlled to attain certain objectives. The Budget has become a major instrument of expression of government programmes.

Budgetary actions of the government affect the production, size & distribution of income & utilization of human & material resources of the country. The Budget is a powerful tool with which the government can greatly influence the formation, distribution & spending of national income through its taxation, public expenditure & borrowing policy. There are basically 3 types of budgets:

a) **Line -Item Budget:**

Budget typically used by governmental entities in which budgeted financial statement elements are grouped by administrative entities & object.

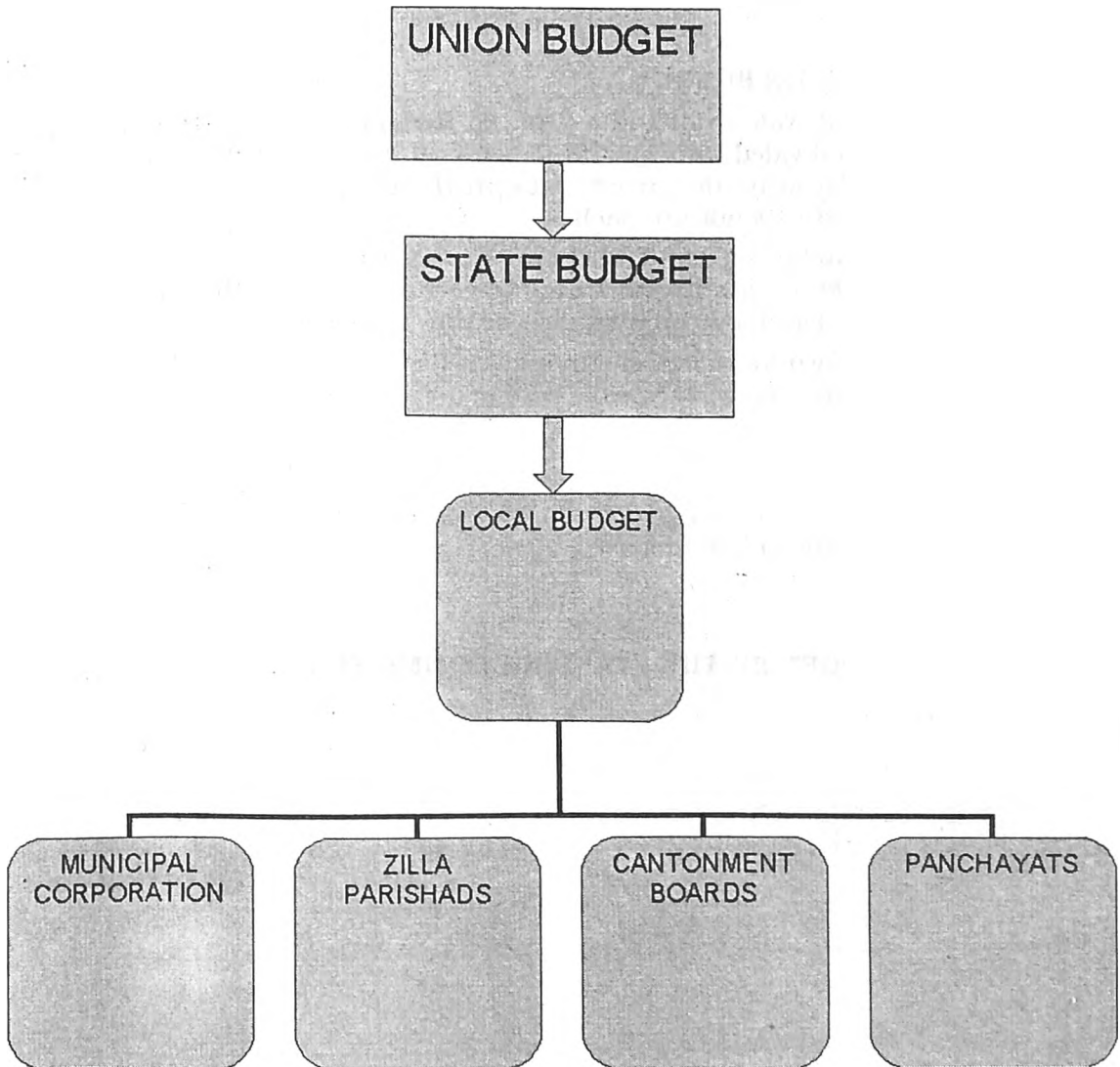
b) **Performance Budget:**

Performance Budget presents the budget in terms of functions, programmes & activities & co- relates the physical & financial aspects of the individual schemes in order to facilitate a better understanding & fuller review of the budgetary allocations & ministry's working.

c) **Zero Based Budgeting:**

Zero Based Budgeting is a technique of planning & decision - making which reverses the working process of traditional budgeting. In traditional budgeting, departmental managers justify only increase over the previous budget & what has been already spent is automatically sanctioned & no reference is made of previous levels of expenditure.

● LEVELS :-



: Pune Municipal Corporation was established on 15 Th February 1950.

For studying the budget, we have to first clear our idea about some core elements of the Budget.

● **COMPONENTS OF THE BUDGET** :-

Earlier the Budget was divided into 3 parts: **Budget A**, Budget B and **Budget C**. Now, the budget is divided into 2 Parts i.e. Budget A and Budget C as Budget B has been scrapped. These parts consist of **Capital**- receipts and expenditure and **Revenue**- receipts and expenditure each.

Besides, these Capital & revenue, there are Receipts and Expenditure on Special Funds given by different institutions and Governments, and the receipts and expenditure not included above are included in the "**SUSPENSE ACCOUNT**".

It also consists of works to be done in a given fiscal year i.e. 2007-08. The work and expenditure are divided ward wise.

● **HYPOTHESIS** :-

We want to find "*Whether the budget is deficit or surplus? And "How competently are the receipts and expenditure utilized?"*

● **TABLE** :-

**APPROVED BUDGET BY THE STANDING COMMITTEE**

(see next page)

	2007 -08			2008 -09		
RECEIPTS	"A"	"C"	TOTAL	"A"	"C"	TOTAL
OPENING BALANCE	0.01	0.01	0.02	0.01	0.01	0.02
OCTROI	745		745	820		820
GENERAL TAX	150		150	235		235
STREET TAX	21		21	33		33
CONSERVANCY TAX	10.5	42	52.5	14	56	70
SPECIAL CONSERVANCY TAX	2.25		2.25	2.25		2.25
WATER BENEFIT TAX		7.35	7.35		12	12
SEWERAGE TAX		14.25	14.25		24	24
FIRE CESS	3.2		3.2	4		4
WATER CHARGES		137	137		160	160
GOVERNMENTAL SUBSIDY	263.8	2	265.8	266	2	268
CITY DEVELOPMENTAL CHARGES	207.5	37.5	245	37.5	37.5	75
AND BUILDING PERMISSION				195		195
OTHER RECEIPTS	104.95	15.7	120.65	117.05	5.7	12
BANK/ FINANCIAL INSTITUTION LOANS	100		100	200		20
TRANSFER FROM "A"		119	118.97		99.25	99.25
TOTAL RECEIPTS	1608.2	374.8	1982.97	1923.8	396.45	2320.25
RECEIPTS AFTER ADDING OPENING						
BALANCE	1608.21	374.8	1982.99	1923.81	396.46	2320.27
TOTAL	1608.21	374.8	1982.99	1923.81	396.46	2320.27
LESS TRANSFER FROM "A"		119	118.97		99.25	99.25
TOTAL	1608.21	255.8	1864.02	1923.81	297.21	2221.02

	2007 -08					2008 -09
<b>EXPENDITURE</b>	"A"	"C"	TOTAL	"A"	"C"	TOTAL
EXPENDITURE ON PMC WORKERS	271.75	43.25	315	282.64	42.36	325
REPAYMENT OF LOANS AND INTEREST RATES	14.92	14.35	29.27	14.17	13.8	27.97
PRIMARY EDUCATION	114.06		114.06	120.64		120.64
ELECTRICITY EXPENDITURE AND MAINTAINENCE	29.92	66.83	96.75	28	91	119
WATER EXPENDITURE		17.25	17.25		18	18
MEDICAL EXPENDITURE	17.5		17.5	22.5		22.5
DEPRECIATION	2.42	0.04	2.46	5.66	0.02	5.68
OTHER EXPENDITURE	116.98	24.87	141.85	169.42	26.6	196.02
MAINTAINENCE AND REPAIR WORK	6.85	0.15	7	10.8	0.2	11
PETROL AND DIESEL EXPENDITURE	14	1	15	15	1	16
WARD LEVEL WORKS	20.63		20.63	30.8		30.8
TRANSFER TO "C"	118.97		118.97	99.25		99.25
TOTAL EXPENDITURE	728	167.74	895.74	798.88	192.98	991.86
CAPITAL AND DEVELOPMENTAL WORKS	880.2	130.03	1010.23	1124.92	137.47	1262.4
WATER SUPPLY AND SOLID WASTE MANAGEMENT		77	77		41.5	41.5
PROJECT STAGE 1					24.5	24.5
TOTAL CAPITAL AND DEVELOPMENTAL WORKS	880.2	207.03	1087.23	1124.92	203.47	1328.4
YEAR END BALANCE	0.01	0.01	0.02	0.01	0.01	0.02
TOTAL	1608.21	374.78	1982.99	1923.81	396.46	2320.27
MINUS- TRANSFER TO "C"	118.97		118.97	99.25		99.25
TOTAL	1489.24	374.78	1864.02	1824.56	396.46	2221.02



The PMC Budget 2007-08 is estimated to be Rs. 1864 crores.

**1) RECEIPTS:-**

● **OCTROI:-**

The important source of revenue for PMC is **Octroi**.

For 2007-08, Rs. 745 crores was approved by the Standing committee but the approximate amount collected between April 07 and Jan 08 was Rs. 560 crores. It means that by the end of the fiscal year 07- 08 (i.e. within 2 months) the amount to be collected is Rs.185 crores , which is difficult to be obtained . Still, for the year 2008-09 the estimated amount is Rs.820 crores.

● **DEVELOPMENT CHARGES AND BUILDING PERMISSION:-**

The fiscal year 2007-08, was a favorable one, as the receipts from development charges and building permission was high. In 2007-08, approved amount was Rs. 245 crores but the approximate amount collected between April 07 and Jan 08 was Rs.261 crores, thus showing surplus. Since the amount received has increased in 07-08, the amount estimated for 08-09 has gone up to Rs.270 crores.

● **WATER CHARGES:-**

Water charges in 2007-08 were approved to be Rs. 137 crores but as expenditure on electricity, irrigation and chemicals has increased by Rs.50 crores So, for 2008-09 the amount is approved to be Rs. 160 crores and this amount is likely to increase in future.

● **OTHER RECEIPTS:-**

The amount estimated by the PMC Commissioner for 2007-08 was Rs.102.65 crores but the amount estimated and approved by the Standing committee was Rs.120.65 crores but in reality by Jan 08 the amount collected was Rs.51 crores .The collection of the other receipts is uncertain, even then the amount estimated for fiscal year 2008-09, is Rs.122 crores.

● **GOVERNMENTAL SUBSIDY:-**

In the year 2007-08 the govt. subsidy approved was Rs.265 crores In this amount, besides education and development Rs.200 crores was collected from JNNURM [Jawaharlal Nehru National Urban Renovation Mission].

● **LOANS:-**

In 2007-08, the estimated and approved amount of loans to be taken from banks/ financial institution was Rs.100 crores , but during the period April 07 – Jan 08, no loans were taken. In 2008-09, the amount to be taken is estimated to be Rs.200 crores i.e.100 % increase.

So in this way, the nature of other sources of receipts is same.

● **TOTAL:-**

In 07-08, the total amount estimated is Rs.1864 crores but the approximate amount received between April07 – Jan08 is Rs.1316 crores For the year 08-09 the amount estimated is Rs.2025 crores .

**2) EXPENDITURE :-**

● **ON SALARIES OF WORKING CLASS :-**

In 2007-08, the PMC has estimated to spend Rs. 315 crores on the approval of the Standing committee, on the salaries of the working class. PMC has decided to control the expenditure on the working class as much as possible but considering the pressure of work, there is much emphasis on the option of mechanization. So, this trend is followed in the next fiscal year i.e. 2008-09 as the amount to be spent is estimated to be Rs.325 crores

● **PRIMARY EDUCATION:-**

In 2007-08, 114.06 crores was approved to be spent on primary education but the amount spent on primary education between April 2007 and Jan 08 is Rs.71 crores and it is estimated that in the next fiscal year the amount to be spent on primary education will be Rs.120.64 crores

● **ELECTRICITY EXPENDITURE AND MAINTENANCE :-**

Rates of electricity has increased considerably therefore, it is inevitable to incur more expenses on electricity. Similarly, the repair and maintenance works are included in this head. For 2007-08, electricity expenditure was approved to be Rs.96.75 crores And the approximate amount to be spent on this head by Jan 2008 was Rs. 65.69 crores For the next fiscal year 2008-09, the amount to be spent on electricity has been considerably increased to Rs.180 crores

● **WARD LEVEL & OTHER**

Under the decentralized system, the zonal officer and the zonal commissioner can approve tender up to Rs. 3 lakhs and Rs. 10 lakhs respectively, to solve the problem of the citizens and for the completion of work on time. For this Rs.20.63 crores is approved to be spent in the year 2007-08. Similarly, for Medical Cover, Water expenditure, Interest on loans, Installments, Petrol, diesel, Administrative works like Computerization, GIS, Works Management System, DP Marking etc., Provisions have been made.

● **TOTAL :-**

For the year 2007-08, the total amount estimated is Rs.1864 crores. The approximate total expenditure incurred between April 2007 and January 2008 was Rs. 1038.22 crores.

● **CONCLUSION:-**

On the basis of this analysis, we would conclude that the expenditure incurred up to Jan 2008 was Rs. 1038.22 crores and the receipts up to Jan 08 were Rs. 1316.32 crores. Therefore, it can be seen that the receipts are more than expenditure and therefore the PMC Budget "2007 - 08" is a "Surplus Budget".

As far as the implementation is concerned, the implementation is slow.

Following are the suggestions to avoid slow implementation caused due to problems such as corruption, limitation of law, intervention of the state government, lack of co-ordination between different departments and overestimation of income sources.

● **FINDINGS:**

1. Rather than PAPER AUDIT (i.e. Budget), PHYSICAL AUDIT (i.e. Completed Work) is necessary. This would clearly show the discrepancies between what appears on paper and the actual implementation.
2. Importance should be given to the concept of Participatory Budget in which Public Groups would be formed in different wards and citizens' opinion would be taken into account while deciding the spending priorities.
3. There is a need of improving financial management and control on expenses which will help to increase savings.
4. Receipt Management System should be established to maximize real receipts with respect to the estimated one.
5. Co-ordination between different departments should be increased while implementing the budget. (e.g. Roads should be repaired only after the Electricity Dept. completes its underground work )

Thus, this will help in 100% implementation of the Budget.

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# *India's Planned Economic Growth - Balanced or Unbalanced ?*

Pragya Gupta  
M.A. (Economics)

India has completed 56 years of planning. WE are currently into the 11<sup>th</sup> plan, with economy growing around 8.8% on an average. This growth rate tells a story of a booming economy. Yet there exists widespread poverty and high unemployment in the Indian economy. India has witnessed vast technological advancement, food production has increased, and various new industries (both heavy and light) have come up making the country self-sufficient. But have these benefits been equally distributed amongst all? answer is no. If this would have been the case then poverty and unemployment would not have existed. When we look into the cause of such unequal distribution we come up with various reasons, which all boils down to one question : Have Indian plans stressed on the growth of few sectors while neglecting others? In other words whether government have used "Balanced Growth or Unbalanced Growth Strategy".

Before discussing and analyzing the five year plans of India let us first understand the meaning of balanced and unbalanced growth". Balanced growth refers to the economic development and pattern of investment necessary to keep different sectors' growth in balance with each other" i.e.. all the sectors should grow simultaneously. Unbalanced growth is opposite of balanced growth." It refers to the pattern of development in which key sectors of the economy are promoted instead of all the sectors". It has been seen in various plans that especial emphasis has been made to various sectors, yet the objective of planning has been self-sustained growth, employment generation and social justice. Hence we need to understand what exactly is the approach of planning .

In order to achieve the above targets, Indian planners adopted the strategy of self-sustained economic growth through INDUSTRIALISATION. The Nehru-Mahalanobis model of growth laid especial emphasis on the development of basic and heavy industries. This was during the second plan. This strategy was evolved on the basis of first plan when agriculture has shown significant growth. But from the middle of second plan itself it was realized that agricultural sector cannot be ignored and effective development plans must incorporate the growth of all sectors i.e.. strategy of balanced growth.

However public sector expenditure in different sectors like agriculture, power, transport & communication and social service tell another story. Table 1 indicates that importance of agriculture has declined over successive plans and that of power, industry and transport & communication has increased.

**TABLE1 : Sectoral Outlay during the plans(in percentage)**

	I	II	III	IV	V	VI	VII	VIII	IX
AGRICULTURE	31	20	21	24	22	24	22	21	21.4
POWER	13	10	14	15	19	28	28	27	23.3
INDUSTRY	6	24	23	23	26	16	13	10	6.4
TRANSPORT & COMMUNICATION	27	28	25	20	18	16	19	21	25.1
SOCIAL SERVICES	22	18	17	18	17	16	18	22	23.8
TOTAL	100	100	100	100	100	100	100	100	100

Source: Economic Survey(2000-01), Planning Commission report( various)

Out of the nine plans mentioned in the table only in the first plan agriculture got a major portion of total public expenditure allocation. From second plan onwards share of agriculture has been around 22% on an average. It is important to note that when we talk of agriculture it includes the following items:

- (a) agriculture and allied activities
- (b) Rural development
- (c) Special area programmes
- (d) irrigation and flood control

It should be noted that when during the first plan government of India aimed at solving the problem of severe food crisis facing the economy immediately after independence and hence a major portion of public expenditure was allotted to agriculture. Since the country was just freed from the shackles of colonialism, it was in a complete disequilibrium state. As a result greater emphasis had to be laid on rehabilitation programme, for which transport & communication and social service sectors had to be concentrated upon. Thus first plan adopted the strategy of unbalanced growth.

During the second plan when some kind of stability had been reached industrial development was emphasized. Consequently lesser allocations were made to the other sectors. Again indicating unbalanced growth strategy.

Figures of 3<sup>rd</sup> and 4<sup>th</sup> plans show that agriculture and industry were both given due importance and the same was with other three sectors i.e.. balanced growth strategy. But these were war periods(Indo-China war

in 1962 and Indo-Pak war in 1965) so later the emphasis was shifted to defence expenditure.

During the fifth plan again industry was emphasized, with 26% of total public expenditure allocated to the sector. However when this plan was formulated there was high inflation in the economy, poverty alleviation and self-reliance was the major concern of the government. Which meant social service sector got major emphasis, though only 17% of total public expenditure was allocated.

Sixth plan laid emphasis on overall growth of the economy, as a result share of agriculture and power was increased. Though only 16% was allocated to social services, many rural development schemes were introduced like IRDP, NREP and RLEGP.

For plans VII, VIII & IX we see a far balanced approach has been adopted by the government. Especially the share of power, transport & communication and social services has increased. With liberalization public investment in infrastructure such as irrigation, power, roads & railways etc was stressed.

### **ASSESSMENT**

Above discussion of the plans may lead us to the conclusion that in every plan government has stressed on a particular objective and thus emphasizing on selected sectors of the economy. However, achievements and growth rates of various indicate an overall balanced growth. On reason for this might be backward and forward linkages (influence on other sectors of development in a particular sector). With industrial development as an important objective, it will not only result in higher employment opportunities for the growing population, it will also help other sectors like agriculture, transport, etc. On the other hand, more industrialization would mean requirement of more power, skilled laborers etc. This would give a boost to power sector, at the same time education will also become a priority. This means that an unbalanced growth strategy can lead to a balanced growth of the economy. We can say this because the five-year plans have not completely neglected any sector. Various programmes to improve agricultural productivity (like introduction of HYV varieties of crops, subsidies for fertilizers to the farmers, adoption of minimum support prices etc) and output have been introduced. Similarly special programmes to fight poverty and unemployment also adopted (some of them are IRDP, JRY, SESUP, Prime Minister's Integrated Urban Poverty Eradication Programme).

But here the question arises how far this backward and forward linkages help in the development of other sectors? This question can be analyzed by studying the growth rates of different sectors and their contribution to the total output of the economy. This is shown in table 2.

**TABLE 2 : Share of various sectors in GDP (in percentage)**

	1950-51	1960-61	1970-71	1980-81	1990-91	2001-02
PRIMARY	59.2	54.8	46.3	39.7	32.2	24.0
SECONDARY	13.3	16.6	21.6	23.7	27.2	26.7
TERTIARY	27.5	28.6	32.1	36.6	40.6	49.3
TOTAL	100	100	100	100	100	100

Source: Economic Survey(2004-2005),RBI report of 2004-05

Here the sectors have been divided into primary,secondary and tertiary.

Primary sector consist of (i) Agriculture and allied activities

- (ii) Forestry
- (iii) Fishing
- (iv) Mining and quarrying

**Secondary sector consist of (i) Manufacturing**

- (ii) Construction
- (iii) Electricity, gas and water
- (iv) Mining and quarrying ( from 1970-71 onwards)

Tertiary sector consist of (i) Trade & Commerce  
(ii) Transport, Storage & Communication  
(iii) Other services.

It is very clear from the above table that share of primary sector have declined over the years, while that of secondary and tertiary sectors have increased the total GDP specially after economic reform and liberization, share of service sector has shown a tremendous rise. But again if Indian plan have stressed on industrialization (especially heavy industries) why have secondary sector not performed in accordance with it ? One explanation could be that with improved technology resulting in better communication, reducing the international barriers along with globalization may have lead to demonstration effect. As a result both consumption and production of services have increased. This might also have been complimented by government's increasing concern for improving standard of living, providing social security to the people. Overall an unbalanced growth strategy.

**However objective analysis of each plan indicates that government has adopted a balanced growth approach. Consider table 3.**

**TABLE 3 : Objectives of various plans**

PLANS	OBJECTIVES	SECTORS MOST AFFECTED
I	Rehabilitation of refugees, rapid agricultural development to achieve food self-sufficiency, control inflation	Agriculture
II	Rapid industrialization	Industry
III	Attainment of self-sufficiency	All
IV	Growth with stability & progressive achievement of self reliance	All
V	Removal of poverty & attainment of self-reliance	All
VI	Removal of poverty & unemployment, modernization of the economy & self reliance	All
VII	Accelerate growth in foodgrains, increase employment opportunities & raise productivity	All
VIII	Accelerate economic growth & improve quality of life	All
IX	Growth with social justice & equality, agriculture and rural development	All

Only during the first two plans government stressed on specific sectors. This is quite justified considering the fact that the country was reeling from the colonial rule.

### CONCLUSION

India has suffered from various setbacks in its achievement of plan targets, in the form of wars with Pakistan & China, high inflation, severe balance of payment crisis etc. These problems have forced the planners and policymakers to shift their focus on current problem. As a result various other internal issues were neglected.

Also we cannot ignore the fact that though government has adopted a balanced growth strategy, the lack of proper implementation of this plans have caused an unbalanced growth of economy.



TABLE 4: Average Growth Rates(in percentage)

	AGRICULTURE	INDUSTRY	SERVICES	OVERALL
1970s	0.6	4.7	4.1	2.9
1980s	4.4	7.4	6.4	5.8
1990s	3.0	5.9	7.4	5.8
2000-05	1.4	6.0	7.8	5.9
2006-07	2.7	10.2	11.0	9.2

Source: Various plan documents.

This can be seen from the growth rate indicated in table 4. Contribution of agriculture in overall growth has not been significant, infact it has reduced over the years, especially after the reforms (in which case service sector is the major contributor). However growth rate did not pickup immediately. Almost a decade later growth rate of the economy shows some improvement, where again agriculture played a very insignificant role. So if we compare table 1 and table 4 we see a difference between plan formulation and its implementation. Plans when formulated a very sound and ideal, but problem lies in implementations. When they are formulated balanced growth approach is adopted but their implementation result in unbalanced growth.

One reason for such result might be lack of capital which is the major problem of underdeveloped economies as mentioned by prof. Hirschman who advocated the theory of unbalanced growth.

To conclude, we can say that planners and policy makers have adopted balanced growth approach (except for first two or three plans) but lack of effective implementation has resulted in unbalanced growth.

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# *Micro Finance*

Ankita Chandavarkar

T.Y.B.A. (Economics)

Money says the proverb makes money. When you have got a little, its's often easy to get more. The great difficulty is to get that little" Adam Smith.

'If we can come up with system that allows everybody to access credit while ensuring excellent repayment –I can give you a guarantee that poverty will not last long.'

Muhammad Yunus.

Today India is facing a major problem in reducing poverty; about 25 million people in India are below poverty line. With low per capita income, heavy population pressure, prevalence of massive unemployment and underdevelopment, low rate of capital formation, unequal distribution of wealth and assets, prevalence of low technology and poor economies, organization and instability of output of agricultural production and related sectors. Though India's GDP is on a rise but the Indian economy still faces a problem of poverty.

## **Present scenario:**

India falls under the low income class according to the World Bank. It's the second populated country in the world and around 70% population lives in rural areas, 60% people depend upon agriculture as a result there is chronic underemployment and low Per Capita Income observed. There isn't enough income to even feed one stomach. Obvious result is abject poverty, low rate of education. Low sex ratio, exploitation. The major factor amounts for high incidence of rural poverty in the low assets base. According to the RBI (2003) 40% of Indians don't even have bank accounts. According to the national sample survey (2003) out of the total cultivators 27% receive credit from formal sources, 22% receive from informal sources and 51% marginal farmers have no access to credit at all.

## **Poverty alleviation programmes:**

There have been continuous efforts of the planners in India in addressing the problem of poverty. There are programmes such as [Integrated Rural Development Programme] IRDP, National Rural Employment Programme [NREP], Rural Labour Employment Guarantee Programme RLEGP, etc., but somehow these programmes haven't had much impact on poverty alleviation. The production oriented approach of planning without altering the mode of production couldn't but result of the gains of development by owners of instrument of production. Then in the nineties,

NABARD (National Bank for Agricultural and Rural Development) launched pilot projects micro finance to bridge the gap between demand and supply of funds in the rural economy. Micro finance is definitely one the solutions to cure the illness of rural economy.

**Micro credit** is defined as provision of thrift, credit and other financial services and products of very small amount to the poor in the rural, semi-urban and urban areas for enabling them to raise their income levels and improve their living standards.

Micro credit had broadened into micro finance.

**Micro credit:** availability of small loans

**Micro finance:** includes savings, insurance, pensions etc.

Micro finance could be defined as financial services to people who otherwise did not have access to formal sources due to small transactions and no collateral provision in some areas. The micro finance sector has been growing rapidly at about 40% annually. In addition to the existing Public sector banks, many new players in the private sector and the multi national banks, social venture capitalists, new generation micro-finance institution (MFIs) as well as inter national retail MFIs have all been attracted to this sector.

### **Role of finance:**

Experience of poverty is often felt in the presence or absence of cash in lives of poor or lower income households. Basic needs can be met by direct production such as fishing, animal husbandary etc but many needs require cash to facilitate the payments and transactions involved. Thus all households have the problem of managing variable cash flows, matching income and expenditure requirements by saving and borrowing. The importance of being able to manage money in order to improve your life and potentially work your way out of poverty, this has led to growth of agencies offering or promoting financial services specially for the poor.

Studies have demonstrated that micro finance helps poor households to meet basic needs and protect themselves against risks. The use of financial services by low-income households leads to improvement in the household economic welfare and enterprise stability and growth. By supporting economic participation micro finance empowers women, thereby promoting gender equality and improving household well being.

Thus micro credit and micro finance are viewed as robustly sustainable and effective tools for poverty alleviation.

### **Grameen Bank-A successful model of micro credit:**

Muhammad Yunus, a professor of economics at Chittagong University, Bangladesh. Around 1974 during a famine in Bangladesh he realized the importance and value of even a small loan in the household of the poor.

The traditional banks refused and were not interested in such small loans as they considered repayment risks and considered them as not credit worthy. M.D Yunus's first step was to lend a small loan \$27 from his own pocket lending to 42 people.

Thereon, he founded the Grameen Bank in 1976 to lend loans to the poor Bangladeshis. To ensure repayment the bank uses the system of solidarity lending through (solidarity): small informal groups, exclusively females who meet weekly in their villages to conduct businesses with representatives of the bank and they support each others efforts at economic self-advancement. Grameen Bank offers other systems of alternative credit which serves the poor in addition to micro credit offering home loans, financing for fisheries, textiles, etc. as well as other banking services.

The survey of Grameen model has been replicated in various developing economies and developed economies like The U.S.A. The micro credit programme that runs on similar basis of Grameen Bank focuses on women. 96% of Grameen loans have gone to women and data proved that there was lesser risk associated in giving credit to them. In the year 2006 Muhammad Yunus was awarded with the Nobel Peace Prize.

#### **Existing Mechanisms in the financial sector that provide credit:**

The various micro credit providers are

- Domestic Commercial Banks
  - Public Sector Banks
  - Private sector banks
- Local Area Banks
- Regional Rural Banks
- Co-operative Banks
- Co-operative societies
- Registered NBFCs (Non Banking Financial Corporation)
- Unregistered NBFCs
- Other providers like Societies, trusts etc.

Broadly there are 2 sources of credit availability institutional and private.

Non institutional sources include moneylenders, traders and commission agents, relatives and land lords.

## **Moneylenders :**

The easiest way for accessing credit is to take loans from informal sources like the moneylenders. The cultivators depend upon these sources for their requirements of cash. He is easily available and maintains a close and personal contact with the borrower, often having relations with family extending over the generations. Methods of businesses are simple and elastic. He has local knowledge and experience and therefore can lend against the land as well as against promissory notes. He knows how to protect himself against default. Poor people or the low income households live in remote regions have no assets and are also viewed as unprofitable by the formal sector. Thus most of them tend to depend on moneylenders, there are various malpractices that are associated with them and monopolistic practices that are carried out in the non institutional sources.

## **Micro finance**

The various models of micro finance are:-

- i) SHGs promoted and financed by banks
- ii) SHGs promoted by NGOs/Government Organisations and financed by banks
- iii) SHGs promoted and financed through NGOs by raising bank loans.
- iv) The federated SHG approach.
- v) SHGs promoted by NGOs / societies / other organizations financed by MFIs
- vi) SHGs promoted and financed by MFIs
- vii) Individual directly financed by MFIs
- viii) The urban co-operation banking model
- ix) Multi state co-operative solidarity group model
- x) NBFC approach

## **There are basically 2 broad models of microfinance that are prevailing:**

Those that borrow or raise equity from various sources for lending to the poor to pursue alternative livelihood opportunities and those that promote savings and thrift as seed as money for raising loans to enhance their existing livelihood opportunities or shift to alternate livelihood opportunities.

## **Self Help Groups; Its role and contributions:**

SHGs are registered and unregistered micro-entrepreneurs having homogeneous social and economic backgrounds. The members of the SHGs come together to save small amounts regularly. They mutually agree to

contribute common funds to meet their needs in emergencies on mutual basis and consent. There has been a rapid growth in past decade. It has assumed the form of a movement, mobilizing poor rural women into small associations that become capable of forging links with formal systems to access to financial and other services. They inturn help them for their socio-economic advancement.

Firstly these members come together, they pool their savings and access credit, the trust between them helps replace physical collateral. This collateral becomes a major hurdle which is faced by them, for obtaining credit and also due to peer pressure and joint credit helps them ensure prompt loan recovery from members. Group lending is better than individual lending as remaining members act as catalysts.

These groups help especially women to establish their credit worthiness and empowers women. It transforms a role of a woman, makes them economically strong and in some cases also independent. These women can fulfill their family's consumption and production needs. Continued participation of the members ensures awareness and enhancement of skills which result in overall development of self-esteem and confidence. Priority of such SHGs has more or less been savings i.e., accumulate savings and in some cases it has been observed that such savings have been substantial in nature. This has also inculcated the habit of savings. In some cases it is observed that amount of savings is small but if it is seen from the angle that it has been saved by such women who come from where they were unable to save and now conveniently save and know it is safe.

Linking of SHGs to banks is a workable way of channelising micro credit to the poor. Some SHGs utilize their savings to lend small loans internally. More and more SHGs are borrowing from banks and SHG federations that mean increase in number of member's access to formal source of credit that also means decreasing dependence on informal sources such as moneylenders. Financing cost reduces with respect to the lender or borrowers both. Also the lender has to operate a single bank account of a SHG than handling large number of bank accounts. Also cuts down on expenses on traveling. They are initially an informal group of 10-12 members; they are encouraged by an NGO or government department. Savings of these SHG members are kept in banks and after 6 months they become eligible for a bank loan. An initial bank loan can be up to 4 into savings. Subsequent loans are given on repayment of previous loans. This can reach up to 8 into savings. Repayment time increases as amount increases.

Obtaining credit helps them to protect themselves from any vulnerability, builds economic base. Loans used for consumption purposes. It has been used for social and productive needs like education, health and housing areas are where they are increasingly channelising their loans used for regular economic activities such as animal husbandary, agriculture and small businesses.

### **Role of a NGO :**

A Non governmental organization is a voluntary organization established that helps organize NGOs of micro entrepreneurs and commending them to banks for credit linkage or borrowing funds from banks for SHGs. These NGOs often play an important role in forming of the SHG. Mostly these NGOs do all the paperwork and the other bank transactions on behalf of the SHG members. These NGOs help in providing these members door step loans. These NGOs acts a mediator between the SHG and banks.

### **Role of Banks :**

Growth under the MFI model has been greatly facilitated by sharp increase in bank credit to the MFIs. A wide range of banks are now financing the sector. Private sector banks lending mostly to the MFIs and the public sector banks through their wide network of rural bank branches mostly the SHGs. The private sector banks are financing MFIs both because they regard it's a good business and because of priority sector obligations more and more public sectors banks are also viewing SHG financing as profitable and undertaking it was and is because of moral persuasion from the government and NABARD studies have shown that because of the rise in self help groups, NGOs in the last decade or so, the repayment track record has been good, the risk factor that was associated with these poor and lower income households is going down. These banks mostly lend to SHGs whom because of peer pressure, the loan is repaid on time. Also, it's observed that the ratio if women to men are taking credit from banks is high, as most of the SHG members are women.

A renowned bank like state bank of India has taken up the SHG movement as a mission; this bank reaches those families who were hitherto having no access to the credit by any formal institutions therefore depending upon informal sources. Microfinance is not new to SBI, Banks Association, with NGOs or voluntary associations is extending financial help can be traced in 1976 even before NABARD introduced SHG-Bank linkage Credit as a pilot project in 1992.

SBI is one of the many banks that have been in the microfinance sector from a long time.

### **Microfinance Institutions :**

It's been more than a decade; various MFIs have come in the rural credit sector. Most of them are based on the Grameen model. The structure of such institutions is as follows:

- Solidarity groups at the base comprising 5 borrowers to each.
- 8 solidarity groups constitute a center.
- 10 centres form a cluster.
- 7 clusters form a branch.

Several such branches form a MFI. They register themselves in India either as societies, Trusts, NBFCs or Local Area Banks [LABs] and are governed by respective rules and regulations. According to the agency model of MFIs, MFIs work as bank correspondents or facilitators on behalf of commercial banks and facilitate credit delivery by identifying borrowers, processing and submitting applications to the banks etc. loan amount is managed by the bank. These MFIs provide a full loan default guarantee 8-15% of the credit limit under the bulk lending model. They access funds in form of cheaper loans, subordinated debts, equity from agencies such as Rashtriya Mahila Kosh, the SIDBI foundation for microfinance development and equity fund under NABARD etc. and re-lend their fund in small amounts to borrowers.

Rate of interest charged by MFIs are changed between 21-30% per annum much lower than moneylenders. Rate of interest depends on number of factors such as cost of funds, cost of delivery of credit and collection of repayment installments etc. These rate of interests are justified as that is essential for sustained growth of MFI sector. Here also it's not advisable to put caps in them. These MFIs can and do complement SHGs, which has its own impressive track record. In response to certain undesirable practices with regard to interest rates and collection of some MFIs. Sadhan, the industry association of MFIs, evolved in 2006, a voluntary code of conduct for the sector.

#### **Micro Finance Bill :**

In recent times there has been welcome recognition of the need for greater professionalism in the micro finance sector. In this context that the microfinance sector (development and regulation) bill 2007 (henceforth) Bill was introduced in the Lok Sabha on March 20, 2007 as a first step to regulate this sector.

This Bill seeks to promote and regulate MFO [micro finance organisation] MFOs definition includes societies, trusts and co-operatives. This Bill designates NABARD as the regulator.

**Micro finance services** include credit life insurance, general insurance and pension services.

**Micro credit services** include lending loans not exceeding (Rs 1, 50,000) in case of housing.

#### **The Bill has 4 positive features :**

1. Bill permits MFOs to accept savings from members subject to existence of 3 yrs having net owned funds of at least 0.5million, satisfactory management can obtain registrations from NABARD and offer them saving services.



2. Bill provides from mandatory registration, periodic registrations report submission by all MFOs seeking to accept deposits need to submit regularly annual financial statements, Thus will lead to a strong database and greater professionalism.
3. Provides for inspection if any complaint of harmful practices. Mention of dispute resolution these all are steps ensuring customer protection.
4. Bill does not introduce interest caps. Interest rates are a function of cost of funds risk and transactions cost. Transaction costs include group formation, training etc also these loans are provided at the doorstep and their value is small.

In the current form the bill's positive features are more than outweighed by the deficiencies.

After being referred to the standing committee of finance which made several recommendations it will now be discussed and debated in the parliament before it's finally passed. Institutional credit or identities to step self help groups will enable SHGs to access and administer credit. If the budget announces a micro finance scheme with a large corpus, then the bill can turn into legislation during the budget session and credit can start flowing out to the poorest of the poor.

### **Conclusion**

Finance is an extraordinary effective tool in spreading economic opportunities and removing poverty. India has a deep financial market but however these formal institutions and markets have not been able to properly cater the needs of the poor. Thus various poor households remain inaccessible to formal sources of credit. Micro finance is the keyword for a sustained and long term economic growth in India. There is a need for substantially scaling up of micro finance including savings and credit. More and more micro finance institutions should be regulated and encouraged. There needs to be a shift in focus from quantity of credit to quality of credit. Emphasis should also be given to SHGS formation and group lending than individual lending. SHGs are mobilising rural poor women and making them economically strong. There needs to be major investment drive in the SHG activities to overcome the constraints faced by them. At the very kernel of the poorest of the poor his well-being is a homogeneous micro finance scheme.

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# *"Honey, I shrank the world!"*

Compiled by : Neha S. Dhavale, Sneha S. Bokil and S.Aparna  
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And Special Thanks to Dr. Sudhir Alurkar for his support and guidance.

Technology and Commerce seem poles apart- like chalk and cheese! Verily, two different threads of these genres cannot be woven! Believe it or not but the fact is that these two threads have been successfully embroidered into a cloth which is of "*E-commerce*". Information today is moving faster than ray of light! We live in a sea of information where information continues to flow in through rivers of knowledge. The internet is changing our lives by every passing second to such an extent that could never have been predicted before. When our lives were changing, commerce had to change its attire.

Like any other attire, technology and commerce combines together to make a beautiful masterpiece and create a makeover of sorts! E-banking, E-marketing, cyber laws etc. are the off-shoots of the tree called "*E-commerce*".

## **"CHEQUE" THIS OUT!**

Banks have embraced the new technology to achieve social objectives. This has enabled them to handle larger volumes of business with highest level of efficiency. The confluence of hi-tech computers and communication techniques is enabling banks and financial institutions to spread their wings and offer technology-based products to a wide spectrum of clientele which was unthinkable in olden days. Indian banking sector which was in incubation a decade ago is now going through a metamorphosis.

The exasperation of waiting in serpentine queues while handling petty bank transactions has gone. Today, you can pay light bills, telephone bills without standing in those long queues! Just by flaunting the credit cards, you can enjoy cashless shopping! To capture the business of well-to-do urban customers who expect faster remittance facility, modern banks are armed with ATMs, anywhere banking, credit-debit cards, loans, home banking, telebanking, internet banking, etc. Such is the magic of technology that your personal appearance in bank is passé. In near future, the identification code will not be case sensitive, but will be a "*face sensitive*"!

## **MARKETING "CZARS"**

Ratan Tata( The Tata Group), Ambani Brothers(Reliance Industries), Kishore Biyani(Future Group), Sunil Mittal(Bharti Airtel), Kumar Mangalam Birla(Aditya Birla Group), Y.C.Deveshwar(ITC) are just few names who have given a new meaning to the word "*czar*"! The Marketing czars! All these

business magnates have come out of the “old school” philosophy and have achieved commercial success beyond imagination. They have become the “creators” and the “destroyers” of the market. Where one man has diverse products under his kitty, the other one has brought malls near our homes. The product range and diversification of the products dished out by these companies is simply amazing. The e-commerce has enabled such businesses to transcend the national boundaries with élan. The internationally acclaimed brands continue to occupy our homes while the Indian products enter the offices and houses situated at every nook and corner of the world. Isn't it mind-boggling? The “wand” of technology has created its magic in the market and we are the witnesses, nay, ultimate beneficiaries. The successful business tycoons are well-educated and are well developing into techno “wizards”. Technology has aided them to bring their innovative ideas to the doors of the consumers and raked the moolah in the economy. In the whirlwind of global competition, the M & A (Mergers and Amalgamations) have become rampant. It is heartening to note that the new generation business honchos have already spread the new-age business with a most potent armory called “E-commerce”.

### **THE MURKIER SIDE OF INTERNET**

Like any other aspect, internet comprises “Yin and Yang”. Cyber law is a term used to describe the legal issues related to use (or abuse?) of communication technology. Major frauds have gone hi-tech. In fact, computer crime and frauds have vitiated the buzz and hype created by the advance of e-commerce. Well, “**Law breakers are way ahead of law makers**”. Tampering, hacking, accessing protected systems, and such cyber crimes have been so rampant that it has become absolutely imperative to have an umbrella in the form of Cyber-laws. An interesting story was doing the rounds in UK. In Sumitomo Mitsui Bank located in the city of London, the fraudsters attempted to steal approximately 220 million dollars from the bank by masquerading as cleaning staff and connected hardware bugs to the keyboard sockets of the bank computer. The bugs captured keystrokes to reveal account details and other information. The offences of such nature cannot be noticed easily. How can one expect to curb such criminal instincts without the protection of laws?

### **THE IT ACT**

In May 2000, both the houses of Parliament in India passed the IT bill. The bill received the assent of the President in August 2000 and came to be known as Information Technology Act 2000. Cyber laws are contained in the IT Act 2000. This Act aims at providing legal infrastructure for e-commerce in India. The abuses of the Internet are sought to be controlled through this legislation.

### **Conclusion -**

The advancing technology has paved the way for people to breathe "e-business". Technology being betrothed with commerce has not only changed the lifestyle of the people but also the entire modality of the business. Earlier when stock market was almost like a fish market, now it has become techno-savvy rendezvous. Things have become so mechanical that all you have to do is to sit at home on your PC and transactions worth millions of dollars are just a mouse click away!

In short, one can venture to say that technological strides have pushed the conventional commerce into a high orbit. Geography has become history and the world appears to be a global village. Under the circumstance, today's *mantra* for survival is to "**think noble, act global without being vocal!**" *How can it be made? Thanks to the advent of e-commerce !*

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- *And last but not the least.... THE INTERNET !*

# संगीतातील ग्रामपद्धती

तृप्ती अ. जोशी

संगीत ही सर्वश्रेष्ठ कला मानली जाते. मानवी जीवनाशी संपूर्ण एकरूप झालेली कोणती कला असेल, तर ती केवळ संगीतकलाच होय. संगीत ही कला स्वयंप्रेरित आहे. मनातील स्वयंभू भावनांच्या प्रेरणेतून संगीत प्रकट होत असते. म्हणूनच सुरांचे आकर्षण, संगीताची ओढ ही सहज-प्रवृत्ती आहे.

आणि म्हणून वैदिककाळापासून आधुनिक म्हणजेच आजच्या काळापर्यंत संगीत हे अस्तित्वात आहे आणि उत्तरोत्तर प्रगत होत आहे. पुराणातही संगीताबद्दल विविध प्रकारचे विचार आढळतात आणि काही विशिष्ट प्रकारच्या पद्धतीही आढळतात.

प्रस्तुत लेखात वायुपुराणात आलेली ग्रामपद्धती, शाईदेवाच्या संगीत रत्नाकरात आलेली ग्राम-पद्धती व आधुनिक संगीतातील ग्रामपद्धतीच्या जवळ असणारी थाटपद्धती याचा तौलनिक अभ्यास, हा विषय मी मांडण्याचा प्रयत्न केला आहे.

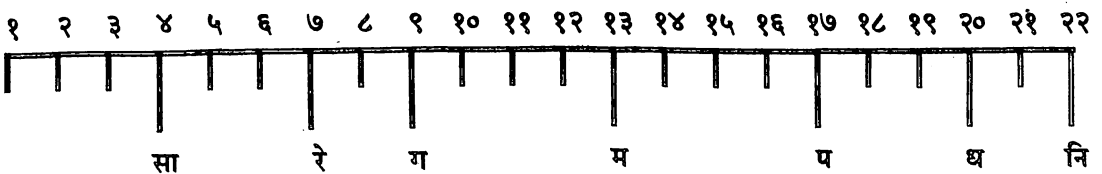
वेदात उदात्त, अनुदात्त, स्वरित यांच्या विकासाबरोबरच सामवेदातील सप्तस्वरांपर्यंतचा विकास घडून आलेला आपल्याला दिसून येतो. नंतरच्या काळात-म्हणजेच ज्या काळात पुराणं लिहिली गेलीत त्या काळात-ह्या सप्तस्वरांचा विकास ग्रामपद्धतीपर्यंत गेलेला आपल्याला दिसून येतो आणि ही ग्रामपद्धती श्रुतींवर आधारित आहे.

भारतीय संगीत हे श्रुतिप्रधान आहे. 'नादाच्या सुक्ष्मतम आविष्कारास श्रुति असे म्हणतात.' भारतीय संगीतात मूळ स्वरसप्तकात अशी एकूण २२ श्रुतिस्थाने म्हणजेच श्रुति आहेत. मोठ्या कौशल्याने ही २२ श्रुतिस्थाने रागगायनात वापरली जातात.

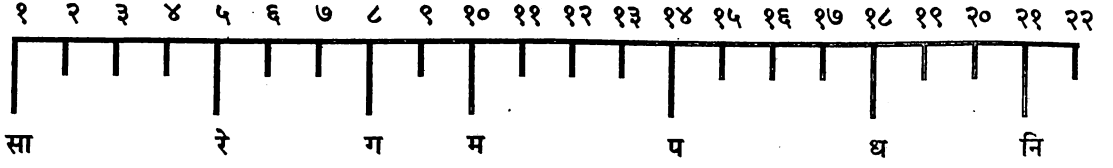
म्हणूनच कोमल गंधाराचा आविष्कार अधिक बारकाव्याने केला, तरच दरबारी कानड्यातील कोमल गंधार आणि तोडीतील कोमल गंधार यातील फरक कळतो.

ह्या २२ श्रुतिंमध्ये सात शुद्ध स्वर, चार कोमल स्वर व एक तीव्र स्वर असे बास स्वर प्रत्यक्षपणे वापरले जातात. ह्या २२ श्रुतींचे विभाजन ४-३-२-४-४-३-२ अशा प्रकारे करण्यात आलेले आहे. या विभाजनात तिन्हीमध्ये (वायुपुराण, संगीत रत्नाकर, आधुनिक संगीत) यात एकमत आढळते; परंतु ह्या श्रुति पहिल्या श्रुतींवर मानाव्यात की शेवटच्या ह्या विचारात भिन्नता आढळते.

वायुपुराण व संगीत रत्नाकर श्रुतींचे विभाजन पुढीलप्रमाणे केले जाते -



तर आधुनिक संगीतात हा स्वर प्रथमश्रुतीवर मानण्यात येतो.



म्हणजेच वायुपुराण व संगीत रत्नाकर ह्यामध्ये स्वर हा शेवटच्या श्रुतीवर मानतात, तर आधुनिक संगीतात तोच स्वर प्रथमश्रुतिवर मानण्यात येतो.

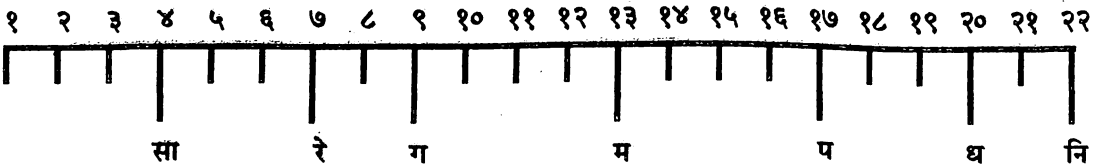
प्राचीन काळी आणि संगीत रत्नाकरच्या काळात मध्यम (म) या स्वराला महत्त्वाचे स्थान होते म्हणूनच स्वरसप्तक हे 'म, ग, रे, सा, नि, ध, प' असे होते, तर आधुनिक संगीतात मध्यम या स्वराला गौण स्थान असून षड्ज या स्वराला महत्त्वाचे स्थान देण्यात आले आहे. म्हणजेच स्वरसप्तक हे 'सा, रे, ग, म, प, ध, नी, सा' असे झाले आहे. प्राचीन (वायुपुराण) व मध्ययुगीन (संगीत रत्नाकर) यात मूळ स्वरसप्तक काफ़ी थाटाचे होते, तर आधुनिक काळात ते बिलावल थाटाचे आहे. काफ़ी म्हणजे ग व नि कोमल आणि बिलावर म्हणजे सर्व स्वर शुद्ध असणारे.

सप्तकातील विशिष्ट श्रुतिक्रमाला ग्राम असे म्हणतात. थोडक्यात म्हणजे स्वरांचा एक समुह म्हणजे ग्राम. सप्तकातील स्वरांची श्रुतिंच्या अनुषंगाने जी विभागणी होते ती प्राचीन व मध्ययुगीन काळात ४-३-२-४-४-३-२ अशी मानली आहे. हाही एक ग्राम होऊ शकतो हे श्रुत्यंतर बदलून अनेक ग्राम तयार होऊ शकतात.

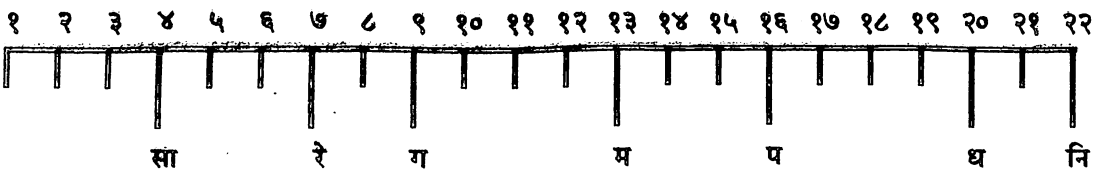
प्राचीन व मध्ययुगीन काळात संगीतात तीन ग्राम मानले आहेत -

(१) षड्ज ग्राम, (२) मध्य ग्राम (३) गांधार ग्राम

मूळच्या श्रुत्यंतरानुसार होणाऱ्या सप्तकास षड्ज ग्राम असे म्हणतात.

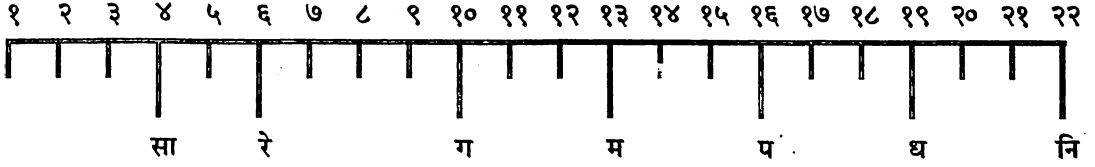


मध्यमग्राम - ज्या सप्तकालतील स्वरस्थाने ४, ३, २, ४, ३, ४, २ या श्रुत्यंतरात येतात अशा सप्तकास मध्यमग्राम असे म्हणतात.



म्हणजेच मध्यम ग्रामामध्ये पंचम व धैवत यांचे श्रुत्यंतर बदलते प हा एक श्रुति अलीकडे येतो. म्हणजे त्रीश्रुतिक होतो. प, ध हा एक श्रुति पुढे जातो म्हणजेच चतुःश्रुतिक होतो. आधुनिक संगीतातील 'पिलू' हा राग मध्यमग्राम असणारा राग म्हणून ओळखला जातो.

गांधारग्राम - ज्या सप्तकातील स्वर ४-२-४-३-३-३-३ अशा श्रुत्यंतरावर येतात त्यास गांधारग्राम असे म्हणतात.



म्हणजेच गांधारग्रामात रे हा स्वर श्रुति अलीकडे म्हणजेच द्विश्रुतिक ग हा एक श्रुति पलीकडे म्हणजेच त्रिश्रुतिक ध हा एक श्रुति अलीकडे म्हणजेच १९व्या श्रुतिवर नि हा स्वर एक श्रुति पलीकडे म्हणजेच त्रिश्रुति अशी स्वररचना येते.

गांधारग्रामालाच गांधर्वग्राम असेही प्रचलित असल्याचेही आपणास दिसून येते. वायुपुराणात ह्या गांधर्वग्रामाची चर्चा केलेली दिसते. पुराणकाळात हा ग्राम गंधर्वलोकी गायला जात असे असेही वर्णन आढळते. गोतर, वादिम, सवित्र, सुवर्ण इ. गांधारग्रामाची नावेही आपल्याला वायुपुराणात आढळतात. म्हणजेच वायुपुराणाच्या काळात हा ग्राम प्रचलित होता आणि त्याच्या विविध रचनाही गायल्या जात होत्या हे समजते.

संगीत रत्नाकरात मात्र गांधर्वग्रामाची रचना कशी होते याची माहिती मिळते; परंतु हा ग्राम भूतलावर गायला जात नाही अशीही माहिती आढळते व आधुनिक संगीतात हा ग्राम पूर्णपणे लोप पावल्याचा आपल्याला दिसून येतो.

काही कालखंडानंतर मध्यमग्रामही मागे पडून फक्त षड्जग्राम अस्तित्वात राहिलेली आपल्याला दिसून येतो. मध्यमग्राम पिलू सोडला तर बाकी राग अस्तित्वात असल्याचे दिसून येत नाही. मात्र षड्जग्राम म्हणजे आपले आजचे मूळ शुद्ध स्वरूपातील स्वरसप्तक आहे हे षड्ज ग्रामाचेच आहे.

वायुपुराणात तीन ग्राम, २१ मूर्छना व ३९ ताल यांचे मिळून स्वरमंडळ तयार होते अशी माहिती आढळते. त्यात मध्यमग्रामाच्या मूर्छनांची संख्या २०, षड्जग्रामाच्या मूर्छनांची १४ आणि गांधारग्रामांच्या मूर्छनांची संख्या १५ मानण्यात आलेली आहे.

सात स्वरांचे आरोही व अवरोही चलन म्हणजे मूर्छना होय. मध्यम व षड्जग्रामाच्या प्रत्येकी सात सात मूर्छना होत्या; पण त्या आधुनिक संगीतात वेगळ्या नावांनी किंवा वेगळ्या प्रकारांनी दिसून येतात.

मूर्छनाच्या वेगवेगळ्या स्वरांच्या निर्मितीतून अलंकार निर्माण होत असा वायुपुराणात उल्लेख आढळतो. या ठिकाणी अलंकार म्हणजे आधुनिक संगीतातील राग आणि मूर्छना म्हणजे थाट असा होतो.

वायुपुराणातील हरिणस्या ही मूर्छना म्हणजेच आधुनिक संगीतातील काफी हा राग (थाट) होय. तसेच सौवेरी म्हणजे भैरवी, कलोपबला आणि बिलावल शुद्धमध्यमा म्हणजे दोन्ही मध्यमांची भैरवी हेही राग वायुपुराणात आढळतात, तर दृश्यका म्हणजे कल्याण हा राग आढळून येतो.

या सर्वांवरून असे दिसून येते की, आधुनिक संगीताचा प्राण असणारा थाट याचा पाया हा पुराणातील मूर्छनांमध्येच आढळून येतो; परंतु पुराणात आलेली ही पद्धती किचकट व लक्षात ठेवण्यास त्रासदायक होऊ लागली आणि जस जसा काळ बदलू लागला तशी ही पद्धतीही बदलू लागली. षड्जग्राम सोडला तर ही ग्रामपद्धती आधुनिक संगीतात नष्ट झालेली आपल्याला दिसून येते. मात्र आधुनिक संगीताचा किंवा प्रारंभिक अवस्था असणारी ही पद्धती म्हणजेच पुराणात आलेली ग्रामपद्धती होय.

वायुपुराणातील संगीत, शाड्गदेवकालीन संगीत व आधुनिक संगीत यातील ग्रामपद्धतीचा अभ्यास करून ती आपल्यासमोर मांडण्याचा मी एक हा छोटासा प्रयत्न केलेला आहे.

२२७३२२

### ग्रंथसूची

- १) संगीतशास्त्र परिचय
- २) वायुपुराणम्
- ३) श्रुतिदर्शन
- ४) वायुपुराण
- ५) संगीत रत्नाकर
- ६) वायुपुराण (आपली उपनिषदे : आपली पुराणे)
- ७) पुराणविमर्श



*Learning gives creativity  
Creativity leads to thinking,  
Thinking provides knowledge  
Knowledge makes you great.*

Dr. A. P. J. Abdul Kalam

