

What Does Budget 2010 Imply for the Social Sector?

SUBRAT DAS, YAMINI MISHRA

The Union Budget for 2010-11 does pay some attention to a few important areas in the social sector like women and child development, development of minorities, rural housing and technical education, but the budget's overall allocations and proposals for the critical social services fall far short of expectations and are in keeping with the fiscal conservatism that has gripped the United Progressive Alliance government in its second tenure.

The present article draws substantially on Centre for Budget and Governance Accountability's analysis, titled "Union Budget 2010-11: Which Way Now?", which is available at www.cbgaindia.org.

Subrat Das (subrat2005@gmail.com) and Yamini Mishra (yamini.mishra@gmail.com) are with the Centre for Budget and Governance Accountability, New Delhi.

India's development deficits in the social sector are well known and so is the fact that the country's public expenditure in the social sector has been low compared to that in the developed countries and several developing countries.

The budgets of the first United Progressive Alliance (UPA) government at the centre, during 2004-05 to 2008-09, had reflected a noticeable improvement in the priority accorded to the social sector, and it was expected that the UPA-II government would continue this welcome trend. However, the Union Budget for 2010-11 reveals that a sense of urgency for addressing the deep-rooted problems in the country's social sector is perhaps missing in the policy agenda of the present government.

The social sector refers to areas like education, health, water and sanitation, and nutrition, etc, which directly influence human development, and, in the budget documents, these are referred to as "social services". The assessment of the implications of Budget 2010 for the social sector needs to be placed in a larger context, taking into account a number of important developments in the sphere of public policies in the country. The present article is an attempt in that direction.

In its previous two budgets (2008-09 and 2009-10), the union government had

taken an expansionary fiscal stance to deal with the challenges emerging from the global financial crisis. However, with a clear indication of the economy reviving, the government seems to have made up its mind now to revert to the path of fiscal conservatism and pursue the deficit reduction targets prescribed in the Fiscal Responsibility and Budget Management (FRBM) Act. And, instead of taking strong measures for expanding the tax revenue base of the country, the approach taken by the government for reducing its borrowing in 2010-11 is one of expenditure compression. As shown in Table 1, the government's total expenditure as a proportion of the gross domestic product (GDP) is projected to fall from 16.6% in 2009-10 (revised estimates or RE) to 16% in 2010-11 (budget estimates or BE). In tandem with the compression of public expenditure, the fiscal deficit of the union government is projected to fall from 6.7% of GDP in 2009-10 (RE) to 5.5% of GDP in

Table 1: Total Magnitude of the Union Budget

Year	GDP at Market Prices (at Current Prices, in Rs Crore)	Total Expenditure from the Union Budget (in Rs Crore)	Total Expenditure from the Union Budget as % of GDP
2004-05	32,39,224	4,98,252	15.4
2005-06	37,06,473	5,05,738	13.6
2006-07	42,83,979	5,83,387	13.6
2007-08	49,47,857	7,12,671	14.4
2008-09	55,74,449	8,83,956	15.9
2009-10 (RE)	61,64,178	10,21,547	16.6
2010-11 (BE)	69,34,700	11,08,749	16.0

GDP figure for 2008-09 is the Quick Estimate by CSO; that for 2009-10 is the Advanced Estimate by CSO; and that for 2010-11 is the figure projected by the Union Ministry of Finance assuming a 12.5% growth in GDP in 2010-11. Source: Compiled by Centre for Budget and Governance Accountability from *Economic Survey 2009-10*, and Union Budget 2010-11.

Table 2: Union Budget Expenditure on Social Services

Year	Expenditure from the Union Budget on Social Services* (in Rs Crore)	Expenditure from the Union Budget on Social Services*	
		as % of GDP	as % of Total Expenditure from the Union Budget
2004-05	39,123	1.2	7.9
2005-06	49,535	1.3	9.8
2006-07	55,246	1.3	9.5
2007-08	78,818	1.6	11.1
2008-09	1,14,342	2.1	12.9
2009-10 (RE)	1,33,400	2.2	13.1
2010-11 (BE)	1,55,422	2.2	14.0

* (1) This includes the Plan expenditure and non-Plan revenue expenditure from the Union Budget on the following services: Education, Youth Affairs and Sports, Art & Culture; Health & Family Welfare: Water Supply & Sanitation; Housing & Urban Development; Information & Broadcasting; Welfare of SCs, STs and OBCs; Labour & Labour Welfare: Social Welfare & Nutrition; and Other Social Services.

(2) This does not include non-Plan capital expenditure from the Union Budget on social services, if any. Non-Plan capital expenditure on social services is sporadic and usually of a very small magnitude. Hence, this figure captures almost the entire magnitude of expenditure on Social Services from the Union Budget.

Source: Compiled by authors from *Expenditure Budget*, Vol I, Union Budget 2010-11.

2010-11 (BE), and the revenue deficit is estimated at 4.0% of GDP in 2010-11 (BE), significantly lower than the 5.3% figure for 2009-10 (RE).

This overarching emphasis on expenditure compression is clearly reflected in the allocations proposed in Budget 2010 for the social sector. Table 2 shows the trend in total expenditure on social services from 2004-05 onwards. We find that expenditure on social services as a percentage of total expenditure in the budget had risen from around 8% in 2004-05 to around 13% in 2008-09, which translated into the total Union Budget expenditure on social services rising from 1.2% of GDP in 2004-05 to 2.1% of GDP in 2008-09. Although this level of increase was nowhere close to what had been promised by the UPA for social sectors in the National Common Minimum Programme (NCMP) of 2004, it was still a welcome trend. In the RE for 2009-10 there has been a very marginal increase to 2.2% of GDP, where it is projected to stagnate. As a proportion of total expenditure from the budget, however, it is expected to rise to 14%.

The increase in the Union Budget expenditure on social services during 2007-08 and 2008-09 seems somewhat impressive; however, we must take into account the fact that state governments continue to bear a significant share of the country's overall public expenditure on social sectors and the total public expenditure on social sectors in the country does not reflect any such impressive rise. Table 3 presents the trend in total public expenditure on social services (i.e., the combined

expenditure of the centre and states on social services) since 2004-05.

As shown in Table 3, the overall fiscal policy space available to the government shows a small expansion during 2004-05 to 2008-09, as the magnitude of total public expenditure in the country (i.e., the combined expenditure of the centre and states) had been checked at less than 25.5% of GDP during 2004-05 to 2006-07 and it hovered around 26% of GDP in 2008-09 (BE). The priority accorded to social services within the total public expenditure has not been high: the combined expenditure of the centre and states on social services has increased gradually from 5.5% of GDP in 2004-05 to 6.6% of GDP in 2008-09 (BE).

The combined expenditure of the centre and the states on "Education, Health and Family Welfare, and Water Supply and Sanitation" has been raised from 3.8% of GDP in 2004-05 to 4.3% of GDP in 2008-09 (BE). There can be little doubt about the inadequacy of this overall magnitude of public spending in the country on three of the important social sectors. The D S Kothari Commission had recommended way back in 1966 that total public spending on

education in India should be raised to the level of 6% of the gross national product (GNP) by 1986. Subsequently, many political parties have reiterated this as a commitment in their election manifesto, and the UPA too had promised in the NCMP in 2004 that total public spending on education would be raised to the level of 6% of GDP. Likewise, following the recommendations of the World Health Organisation (WHO) for the developing countries, the UPA had made a commitment in the NCMP in 2004 that total public spending on health in the country would be raised to the level of 2 to 3% of GDP, which was also reiterated in the Eleventh Five-Year Plan. However, the reality is that even in 2008-09 (BE), the total public spending in the country on Education, Health and Water and Sanitation combined was as low as 4.3% of GDP.

Finance Commission Recommendations

As regards the policy direction suggested by the Thirteenth Finance Commission (TFC), both the report of the commission (tabled in Parliament on 25 February this year) and Budget 2010 clearly indicate that the next five years would witness growing efforts by the union government towards elimination/reduction of deficits through compression of public expenditure. Consequently, any significant boost to public expenditure in the social sector in

Table 3: Combined Expenditure of Centre and States on Social Services

Year	A	B	C	A as % of GDP**	B as % of GDP	C as % of GDP
	Combined Expenditure of Centre and States* (in Rs Crore)	Combined Expenditure of Centre and States on – Social Services# (in Rs Crore)	Combined Expenditure of Centre and States on Education, Health and Family Welfare, and Water Supply and Sanitation@ (in Rs Crore)			
2004-05	8,24,480	1,76,947	1,23,418	25.5	5.5	3.8
2005-06	9,33,642	2,09,099	1,43,670	25.2	5.6	3.9
2006-07	10,86,592	2,47,687	1,70,370	25.4	5.8	4.0
2007-08 (RE)	13,32,923	3,11,682	2,06,043	26.9	6.3	4.2
2008-09 (BE)	14,63,359	3,69,053	2,39,889	26.3	6.6	4.3

* This figure refers to the total expenditure from the union budget and state budgets combined; without any double counting of the inter-governmental transfers like central grants and loans to the States.

This refers to the total expenditure on Social Services from union budget and state budgets combined, without any double counting of the fund transfers from centre to states. The data source for this, *Indian Public Finance Statistics*, includes the following heads under "Social and Community Services" – education, art and culture; scientific services and research; medical and public health; family welfare; water supply and sanitation; housing; urban development; broadcasting; labour and employment; relief on account of natural calamities; social security and welfare; others.

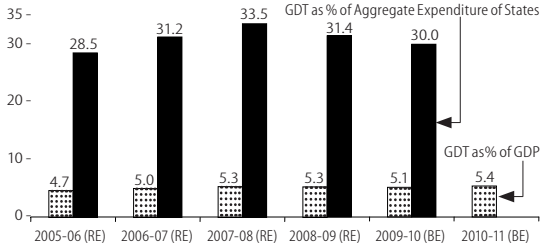
The *Indian Public Finance Statistics* reports the non-plan expenditure on "Relief on Account of Natural Calamities" and "Social Security and Welfare" under non-developmental expenditure, while both the Plan and non-Plan expenditure on rest of the social services are reported under developmental expenditure. The figures presented here, as combined expenditure of centre and states on social services, include both Plan expenditure and non-Plan expenditure on "Relief on Account of Natural Calamities" and "Social Security and Welfare".

@ This figure is a part of the combined expenditure of centre and states on social services. The data source, *Indian Public Finance Statistics*, includes the following heads under this figure – education, medical and public health, family welfare, and water supply and sanitation.

** GDP figures used for this computation are the same as those presented in Table 1.

Source: Compiled by authors from *Indian Public Finance Statistics 2008-09*, Ministry of Finance.

Chart 1: Gross Devolutions and Transfers from the Centre to the States (in %)



Gross Devolution and Transfers include: (i) states' share in central taxes, (ii) Grants from the centre, and (iii) Gross loans from the centre.
 Source: Compiled by the Centre for Budget and Governance Accountability from data provided in Union Budget, various years; *Economic Survey 2009-10*, and *State Finances: A Study of Budgets*, various years.

the next few years seems unlikely. Also, Budget 2010 marks the first year of the implementation of the TFC recommendations. Despite the increase in states' share in central Taxes and duties to 32% (from the erstwhile 30.5%) and a number of specific purpose grants (recommended by the TFC), the gross devolutions and transfers (GDT) from the centre to the states would be 5.4% of GDP in 2010-11 (which is almost the same as that in 2007-08 and 2008-09). As shown in Chart 1, the GDT from the centre to the states had accounted for 33.5%

of the aggregate expenditure of states in 2007-08 (RE), which had fallen to 30% in 2009-10 (BE). The quantum of GDT from the centre to the states indicated in Budget 2010 is unlikely to reverse this trend of a decline in the share of GDT in aggregate expenditure from state budgets.

Thus, the recommendations of the TFC do not seem to suggest any noticeable expansion of the fiscal policy space available to the state governments over the next five years. On the other hand, the recommendations pertaining to the fiscal health of the states strongly advocate a conservative fiscal policy for all states; which should pursue elimination/reduction of deficits in the state budgets over the next five years. Hence, the possibility of any significant increase in the state budget expenditure on social services seems equally unlikely in the near future. In other words, the present state of affairs in

the social sectors in our country, most of which is resource-starved and struggling to cope with the emerging challenges, is likely to remain unchanged for the next few years.

Mid-Term Appraisal

With only two years remaining in the Eleventh Five-Year Plan period (2007-08 to 2011-12), the Planning Commission has been involved over the last few months in a mid-term appraisal. Hence, it was expected that Budget 2010 would reflect the Planning Commission's suggestions for course correction over the remaining two years starting from 2010-11. However, with regard to the social sectors, Budget 2010 does not indicate any such course-correction for the last two years of the Eleventh Plan. Rather, it reflects the lack of seriousness on the part of the government to implement the Planning Commission's recommendations pertaining to allocation of funds for some of the important programmes/schemes in the social sectors.

CALL FOR RESEARCH PROPOSALS

Local Governance Initiative (LoGIn) South Asia is a project of the Swiss Agency for Development and Cooperation (SDC) in India. It focuses on promoting knowledge exchange on Decentralisation and Local Governance. LoGIn invites proposals from mid career researchers based in academic establishments, policy research institutions, civil society organisations or independent researchers on themes related to Local Governance and Social Inclusion. The research grant is available to:

1. Undertake field - based research: monthly grant of Rs.35,000 upto a maximum of twelve months plus Rs.30,000 for travel will be provided
2. Complete and consolidate on-going research: monthly grant of Rs.35,000 upto a maximum of eight months plus Rs.15,000 travel grant will be provided
3. Document (albeit within a research framework) field-based experiences: monthly grant of Rs. 35,000 for a maximum of 6 months plus Rs.15,000 travel grant will be provided
4. Write journal paper/s based on already existing research conducted by the applicant: monthly grant of Rs. 30,000 for a maximum of three months will be provided

Eligibility: M.Phil with eight years of research experience or PhD with four years of research experience

Submission Guidelines: Applicants are invited to submit (i) Curriculum Vitae (ii) Details requested in the fellowship form (iii) Research proposal not exceeding 4000 words and (iv) Sample of writing by the applicant. **The last date of application is 30th April, 2010.**

Background information relating to relevant themes for research and application form are available at: www.sdcindia.in under **Announcements**.

The proposal and requested information should be emailed to: login.researchfund@gmail.com and a hard copy must be sent to:

LALPR/EMS
LoGIn - Local Governance Initiative South Asia
Swiss Agency for Development & Cooperation (SDC)
 Chandragupta Marg, Chanakyapuri,
 New Delhi - 110 021, India



Local Governance Initiative South Asia
 regional knowledge exchange programme on local governance

Table 4: Outlays Recommended for Eleventh Plan vs Union Budget Allocations Made in the First Four Years of the Plan

Programme/Scheme	Outlay Recommended For Eleventh Plan (in Rs Crore) (at Current Prices)	Plan Allocation Made in the Union Budget (in Rs crore)				Total Union Budget Allocation Made in the First 4 Years of Eleventh Plan (in Rs Crore)	Union Budget Allocation Made during 2007-08 to 2010-11 as % of Outlay Recommended for Eleventh Plan
		2007-08 (RE)	2008-09 (RE)	2009-10 (RE)	2010-11 (BE)		
Sarva Shiksha Abhiyan (SSA)	71,000	13,171	13,100	13,100	15,000	54,371	76.6
Mid-Day Meal (MDM)	48,000	6,678	8,000	7,359	9,440	31,477	65.6
Teacher Training	4,000	312	307	325	500	1,444	36.1
Rashtriya Madhyamik Shiksha Abhiyan (RMSA)	22,620	1	511	550	1,700	2,762	12.2
University Grants Commission (UGC)*	25,012	1,633	2,762	3,244	3,885	11,524	46.1
Technical Education*	23,654	1,103	2,885	3,686	4,706	12,380	52.3
National Rural Health Mission (NRHM)	89,478	10,669	11,930	13,378	15,440	51,417	57.5
District Hospitals*	2,780	-	68	16	200	284	10.2
Human resources for health*	4,000	-	56	16	323	395	9.9
Integrated Child Development Services (ICDS)	42,400	4,857	5,665	8,162	8,700	27,384	64.6

* Figures for Union Budget allocations for these schemes do not include the lump sum provision of funds for North Eastern Region and Sikkim, if any.

Source: Compiled by CBGA from Eleventh Five-Year Plan, Planning Commission; and Union Budget, various years.

In the current discourse on planning and government budgeting in the country, there are very few benchmarks for assessing the adequacy of public spending on development programmes/schemes in the social sectors. In this context, the outlays recommended by the Planning Commission for the Eleventh Five-Year Plan period (2007-08 to 2011-12) could be treated as some such benchmarks, even though the quality parameters underlying these benchmarks would hardly be satisfactory.

With just one more Union Budget left in the Eleventh Plan period (i.e., the Budget for 2011-12), around 80% of the outlays recommended by the Planning Commission should have been made for the Plan programmes/schemes from 2007-08 to 2010-11. However, as shown in Table 4, the total provisioning in the four Union Budgets from 2007-08 to 2010-11 has been only 12% of the recommended outlay for the Rashtriya Madhyamik Shiksha Abhiyan (RMSA), 36% for teacher training, 46% for the University Grants Commission and 52% for technical education; although the Sarva Shiksha Abhiyan (SSA) and the Mid-Day Meal (MDM) schemes have fared better with 77% and 66% respectively.

The mismatch between the outlays recommended by the Planning Commission and the allocations made in the Union Budget (2007-08 to 2010-11) seems more pronounced in case of some of the important schemes in health sector. In the

National Rural Health Mission (NRHM), the total Plan allocation made in budgets for 2007-08 to 2010-11 stands at just 57.5% of the quantum of funds recommended by the Planning Commission for the entire Eleventh Plan period. Two of the new schemes launched in the Eleventh Plan, District Hospitals and Human Resources for Health, deal with some of the most acute problems confronting the health sector in our country. However, the total Plan allocations made in the Union Budgets for 2007-08 to 2010-11 for these new schemes have been as low as 10%. Likewise, for the Integrated Child Development Services (ICDS) scheme, which addresses the development needs of children in the 0 to 6 years age group, the total allocations made in the Budgets for 2007-08 to 2010-11 stand at 65% of the quantum of funds recommended by the Planning Commission for the entire Eleventh Plan period.

Growing Complacency

Budget 2010 does pay some attention to a few of the important sectors/issues like women and child development, development of minorities, rural housing, technical education, etc. However, the budget's overall

allocations and proposals for the social sector fall far short of expectations.

(The expenditure on education is discussed in detail the accompanying article by J Tilak on education in this special issue.)

The country's total public spending on health, which has hovered around 1% of GDP, is among the lowest in the world; while the out of pocket expenditure on health in our country is among the highest. Against this backdrop, there can be little doubt about the fact that the union government's allocation on health (i.e., the budget for the Ministry of Health and Family Welfare), which shows a negligible increase from 0.35% of GDP in 2009-10 (RE) to 0.36% of GDP in 2010-11 (BE), is grossly inadequate (Table 5). Even after Budget 2010, the government is far short of the NCMP target of raising total public spending on health in the country to 2 to 3% of GDP.

The government has proposed to include in the Rashtriya Swasthya Bima Yojana (RSBY) all those National Rural Employment Guarantee Scheme (NREGS) beneficiaries who have worked (in the scheme) for at least 15 days in the last fiscal year. While this is a welcome development,

Table 5: Union Government's Expenditure on Health and Family Welfare

	Union Government's Expenditure on Health and Family Welfare* (in Rs Crore)	Union Government's Expenditure on Health and Family Welfare as % of GDP	Union Government's Expenditure on Health and Family Welfare as % of Total Expenditure from Union Budget
2004-05	8,086	0.25	1.6
2005-06	9,650	0.26	1.9
2006-07	10,948	0.26	1.9
2007-08	14,410	0.29	2.0
2008-09	17,661	0.32	2.0
2009-10 (RE)	21,680	0.35	2.1
2010-11 (BE)	25,154	0.36	2.3

* This refers to the expenditure by the Union Ministry of Health & Family Welfare only; it does not include the expenditure on healthcare services by other Union ministries.

Source: Compiled by CBGA from Union Budget, various years.

there are several concerns pertaining to the implementation of RSBY (relating mainly to the role of private health insurance companies and the private healthcare institutions involved in RSBY), which need to be addressed. The allocation for National Disease Control Programmes has been reduced from Rs 1,063 crore in 2009-10 (BE) to Rs 1,050 crore in 2010-11 (BE), which is disturbing given that a number of diseases covered under the scheme have witnessed increased prevalence in the recent past. The overall allocation for Medical Education and Training has been reduced from Rs 3,256 crore in 2009-10

Table 6: Tax Revenue Foregone in the Central Government Tax System due to Tax Exemptions/Incentives/Deductions

Items	Revenue Foregone in 2008-09 (in Rs Crore)	Revenue Foregone as % of Aggregate Tax Collection in 2008-09	Revenue Foregone in 2009-10 (in Rs Crore)	Revenue Foregone as % of Aggregate Tax Collection in 2009-10
Corporate income tax	66,901	11.08	79,554	12.60
Personal income tax	37,570	6.22	40,929	6.48
Excise duty	1,28,293	21.25	1,70,765	27.04
Customs duty	2,25,752	37.39	2,49,021	39.43
Total	4,58,516	75.95	5,40,269	85.56
Less (export credit-related)	44,417	7.36	37,970	6.01
Grand Total	4,14,099	68.6	5,02,299	79.5

(1) As per the Receipts Budget in the Union Budget, "the estimates and projections are intended to indicate the potential revenue gain that would be realised by removing exemptions, deductions, weighted deductions and affected by removal of such measures....(Also) the cost of each tax concession is determined separately, assuming that all other tax provisions remain unchanged". (2) Aggregate Tax Collection refers to the aggregate of net direct and indirect tax collected by the central government.

Source: Receipts Budget, Union Budget 2010-11.

(BE) to Rs 2,679 crore in 2010-11 (BE); within this, the most evident is the fall in allocation for establishment of AIIMS type super specialty hospitals, where the allocation has been reduced significantly. The union finance minister's proposal for an Annual Health Survey to prepare District Health Profile for all districts is a welcome step; but the government would need to allocate adequate funds for this purpose. We may note here that no allocation towards this has been made in the Union Budget for 2010-11.

The budgetary allocation for Rural Water Supply has shown a small increase from Rs 7,199 crore in 2009-10 (RE) to Rs 8,100 crore in 2010-11 (BE). In Rural Sanitation too, there has been a small increase in the allocation from Rs 1,080 crore in 2009-10 (RE) to Rs 1,422 crore in 2010-11 (BE). Allocation for ICDS has been increased from Rs 6,705 crore in 2009-10 (BE) to Rs 8,700 crore in 2010-11 (BE); but even this increased budget allocation is grossly inadequate for universalisation of ICDS with quality. At the national level, around 26% of anganwadi worker posts are reported to be vacant. Vacancies for other posts such as child development project officers/asst CDPOs (at 40%), supervisors (at 45%), and clerk-cum-accountants and drivers too are quite high. According to a survey conducted by the National Council for Applied Economic Research (NCAER), in 2004-05, only 46% of the (then operational) anganwadi centres (AWCs) were running from pucca buildings. Hence, the government needs to allocate a substantially higher quantum of funds for universalisation of ICDS with quality of services.

With regard to the social sector, it can be argued that most of the Plan schemes

of the union government continue to follow a welfarist approach and provide low-cost, ad hoc interventions. An entitlements-based approach towards public provisioning in the social sectors would require a significant strengthening of the regular and sustained government interventions in these sectors, which would inevitably require a much higher priority to be given to the social sectors in union and state budgets than what is still prevailing. However, a sense of urgency for addressing the challenges in the social sectors does not yet seem to be on the policy agenda of the union government.

Finally, while making a case for a significant increase in the quantum of public expenditure on the social sector in the country, one needs to address (at least tangentially) the usual argument put forward by the policymakers pertaining

to the question of resources available to the government. In this context, we need to pay attention to the problem of a huge amount of tax revenue foregone due to the exemptions/deductions/incentives in the central government tax system.

The union finance minister had recognised in last year's budget speech that India's tax base continues to be low compared to other countries, mainly due to a plethora of exemptions/deductions in the central government tax system. However, the government has not taken any corrective measures in this regard even in the Union Budget for 2010-11. As shown in Table 6, the total magnitude of tax revenue foregone due to exemptions/incentives/deductions in the central government tax system has been estimated (by the finance ministry itself) to rise from Rs 4.14 lakh crore in 2008-09 to Rs 5.02 lakh crore in 2009-10. A liberal estimate of the amount of additional tax revenue which could have been collected by the union government in 2009-10, if all exemptions/incentives/deductions (both in direct and indirect taxes) had been eliminated, stands at a staggering 8.1% of GDP. Not all kinds of tax exemptions/incentives/deductions can be eliminated; however, there could be a strong case for removing those exemptions which are benefiting mainly the privileged sections of population.

Economic & Political WEEKLY

REVIEW OF AGRICULTURE

December 26, 2009

Economic Liberalisation and Indian Agriculture: A State-wise Analysis – G S Bhalla, Gurmail Singh

Secret of Gujarat's Agrarian Miracle after 2000 – Tushaar Shah, Ashok Gulati, Hemant P, Ganga Shreedhar, R C Jain

Biotechnology and Pro-Poor Agricultural Development – N Chandrasekhara Rao, S Mahendra Dev

Sustainable Development of Biofuels: Prospects and Challenges – S S Raju, P Shinoj, P K Joshi

Pulses Production Technology: Status and Way Forward – A Amarendra Reddy

For copies write to:

Circulation Manager,

Economic and Political Weekly,

320-321, A to Z Industrial Estate, Ganpatrao Kadam Marg,

Lower Parel, Mumbai 400 013.

email: circulation@epw.in