Working Group on

"Access to Health Systems including AYUSH"

Government of India
Planning Commission

D.O. No.G-20018/3/2006-P&E

July 31, 2006

Dear

Planning Commission has constituted a Working Group on " Access to Health Systems including AYUSH" under the chairmanship of Secretary (AYUSH). Secretary (AYUSH) in turn had constituted Sub-Groups on following five issues:

(i) AYUSH Education.
(ii) Standardization and Quality Control of AYUSH drugs.
(iii) Research & Development.
(iv) Medicinal Plants.
(v) Mainstreaming of AYUSH.

The above Sub-Groups have submitted their reports which were discussed in the meeting of the Working Group chaired by Secretary (AYUSH) recently (Minutes enclosed). On the basis of a discussion in the Working Group and the Sub-Groups the Department has formulated its 11th Five Year Plan proposals. The change in priorities and schemes in the 11th Plan are reflected in the introduction chapter. The Department proposes to scale up Plan provision for Department of AYUSH from Rs.1057.26 crore (actual expenditure of first four years of the 10th Plan and B.E. of 2006 – 2007) to Rs.2473.45 crore in 11th Plan. The Department has been very cautious and realistic in making its Plan projections and it is hoped that by improving utilization of Plan funds and the quality of Plan expenditure the Department would be able to come back to the Planning Commission for raising its Plan provision midway during the 11th Plan.

Please find enclosed herewith the proposals of the Department of AYUSH for 11th Five Year Plan for AYUSH sector which have been duly approved by Secretary (AYUSH).

I am also enclosing the copies of the reports of the 5 Sub-Groups constituted by Secretary (AYUSH) on the above mentioned five subjects. The 11th Five Year Plan proposals alongwith the 5 reports of the Sub-Groups may be treated as report of the Working Group on "Access to Health Systems including AYUSH" constituted by the Planning Commission under the chairmanship of Secretary (AYUSH)..

With regards,

Yours sincerely,

(SHIV BASANT)

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INTRODUCTION

Department of Indian Systems of Medicine and Homoeopathy (ISM&H) was established in 1995 and renamed as Department of Ayurveda, Yoga & Naturopathy, Siddha, Unani and Homoeopathy (AYUSH) in November, 2003. There has been a three fold increase in the Plan budget of the Department in the 10th as compared as 9th Plan, most of which was on account of scaling up of the budget provision in the last two years of the 10th Five Year Plan i.e. 2004 – 2005 and 2005 – 2006 in line with the declared policy of the Central Government to increase the budgetary provision for AYUSH sector for mainstreaming it in the national health care delivery network.

Department has utilized the increased budget provisions in the 10th Plan for raising standards of AYUSH education, upgradation of national institutes set up by the Department to lay down benchmarks for teaching, research and clinical practices of different systems. With a view to prevent the mushroom growth of sub-standard colleges, the Indian Medicine Central Council and Homoeopathic Central Council Acts were amended in 2003 to provide for prior permission of the Central Government for establishing new colleges, starting new and higher courses, increase in the admission capacity in Ayurveda, Siddha, Unani and Homoeopathy colleges. The Centrally Sponsored Schemes of Strengthening of Institutions was effectively utilized for providing assistance to Government and Government aided colleges for ensuring conformity with the minimum infrastructural standards laid down by the statutory bodies. The Department would like to develop Government, Government aided and private but not for

profit AYUSH colleges to the level of Centre of Excellence by providing enhanced scale of assistance on the basis of college specific upgradation plan which will clearly outline the responsibility of the college management and the State Governments for effective utilization of central assistance to be provided in the 11th Plan for the upgradation of these colleges.

Department of AYUSH attaches very high priority to laying down of pharmacopoeial standards for single and compound formulations, scientific validation of herbo-metallic compounds, standardization and quality control of AYUSH drugs. It is proposed to set up a Pharmacopoeial Commission for Indian Medicine in the 11th Plan which will be housed in the newly constructed building of the Pharmacopoeial Laboratory of Indian Medicine, Ghaziabad. The basic objective is to create an independent scientific body which will undertake laying down of pharmacopoeial standards and their revision from time to time on a more permanent footing. The Centrally Sponsored Scheme of Drugs Quality Control in the 10th Plan was utilized for providing financial assistance to the State Drug Testing Laboratories and State Pharmacies. The experience has not been a happy one as inspite of provision of financial assistance, State Drugs Testing Laboratories have been functioning at a sub-optimal level due to a variety of managerial problems. Offtake under the strengthening of enforcement mechanism component has also been very poor. The Department would like to shift the emphasis in the 11th Plan from strengthening of State Drug Testing Laboratories to utilization of a vast network of NABL accredited laboratories all over the country for random testing of Ayurveda, Siddha and Unani drugs and Homoeopathic mother tinctures for ensuring quality control of AYUSH medicines. It is proposed to modify the existing drug quality control scheme to provide financial assistance to States in terms of reimbursement of expenditure incurred by them on random testing of AYUSH medicine through NABL laboratories. The Department has enforced

Good Manufacturing Practices and mandatory testing of heavy metals for export of purely herbal Ayurveda, Siddha and Unani medicines. Hon'ble Members of Parliament and informed sections of the public are also pressing for mandatory testing of AYUSH medicines for domestic consumption as well which would require in-house quality control laboratories in most of the AYUSH manufacturing units. A large number of AYUSH manufacturing units fall in the small and medium scale, it is felt that without a liberal financial assistance from the Government they would not be able to purchase costly equipments like Atomic Absorption Spectrometer for testing of heavy metals, TLC/HPTLC/GLC for testing of crude drugs. Therefore, it is proposed to provide backended subsidy of Rs.50.00 lakh or 50% of the project cost whichever is less to Ayurveda, Siddha and Unani drug manufacturing units for acquisition of requisite equipments and instruments for enabling them to test their ingredients, their raw materials and finished products inhouse. The subsidy would be released only through scheduled banks on the basis of a certificate to be issued by State Licensing Authority or any NABL Laboratories to the effect that the concerned manufacturing unit has obtained the requisite equipments and has started inhouse testing of raw materials and medicines. This assistance will be provided only to those units which has an annual turnover not exceeding Rs.25.00 crore. Units whose annual turnover exceeds Rs.25.00 crore should be able to avail of soft known facilities under the Pharma Development Fund which is administered by the Department of Science & Technology. As regards the State Drug Testing laboratories for which 1st instalment of upgradation grants has been released in the 10th Plan would be eligible for 2nd and 3rd instalment in the 11th Plan on proper utilization of funds.

Mainstreaming of AYUSH is one of the key strategies under the National Rural Health Mission (NRHM) under which it is envisaged that all PHCs/CHCs would be provided AYUSH

facilities under the same roof. While the AYUSH manpower would be arranged either by relocation of AYUSH doctors from existing dispensaries or from contractual hiring of AYUSH doctors under NRHM funds. The other infrastructure and supply of medicines to PHCs/CHCs would be done through the Centrally Sponsored Scheme of Hospitals and Dispensaries which has received a very good response from States in the last two years of the 10th Plan. Hence, it is proposed to substantially increase the Plan provision for this scheme to Rs.625 crore in 11th Plan. A minor modification in the scheme for providing upgradation and assistance to existing AYUSH hospitals and dispensaries is also proposed.

The need for in-situ conservation and promotion of ex-situ of medicinal plants cannot be over emphasized. On the basis of the recommendations of the Task Force of Planning Commission the National Medicinal Plants Board (NMPB) was set up in the 10th Plan which is still grappling with infrastructural constraints. However, the National Medicinal Plants Board has been able to provide a strong impetus to medicinal plants sector through promotional and contractual farming schemes. Keeping in view the vast experience and constraints in the implementation of these two schemes, it is now proposed that the promotional and conservation scheme of the NMPB would be continued as Central Sector Scheme while the contractual farming scheme should be converted into a Centrally Sponsored Scheme for better monitoring and implementation by the State Medicinal Plants Board (SMPB). It has been felt that the States have not strengthened their Medicinal Plants Board as NMPB has been directly implementing the contractual farming scheme as a Central Sector Scheme. Conversion of this into Centrally Sponsored Scheme will provide the right impetus to the States to strengthen their SMPBs for better planning, implementation and monitoring of the contractual farming scheme which has a huge potential of generation of additional

employment and income to the farmers through crop diversification. The Central Sector Scheme of the NMPB will concentrate on conservation/regeneration through joint forest management committees in forest areas, establishment of Gene Bank and community herbal gardens, etc. Whereas the Centrally Sponsored Scheme would encourage cultivation by farmers and provision of post harvest management and marketing support by State Medicinal Plants Boards and other State agencies in collaboration with National Medicinal Plants Board. Accordingly it is proposed to scale up the plan financing of the NMPB from approximately Rs.134.64 crore to Rs.465 crore in the 11th Plan.

AYUSH research councils have done a lot of research based on survey of medicinal plants and observatory clinical trials. Department has been emphasizing on focused, protocol based and peer reviewed research in a specified time frame and with specified outcomes. The major hindrance in the working of the AYUSH research councils has been non-implementation of the flexible complimentary scheme made applicable to other scientific institutions for in-situ Assured Career Progression as a result of which AYUSH councils are not able to attract talent. This matter has been taken up with the Department of Personnel & Training and Ministry of Finance on a number of occasions without much success. It is hope that the Sixth Pay Commission on the anvil will be able to address this anomaly. Another area of weaken of the AYUSH research councils has been lack of adequate equipments and good laboratories for standardization and quality control work. The Department has now entrusted the Pharmacopoeial work to the AYUSH research councils so that laying down of pharmacopoeial standards and SOPs can be attended to on a sustained basis in a scientific environment. Keeping in view the requirements for upgradation of various peripheral units of the research councils, it is proposed to scale up the Plan provisions** of Central Council for

Research in Ayurveda and Siddha (CCRAS) from Rs.54.37 crore to Rs.100.00 crore in 11th Plan, for Central Council for Research in Unani Medicine (CCRUM) from Rs.59.45 crore to Rs.90.00 crore and for Central Council for Research in Homoeopathy (CCRH) from Rs.37.39 crore to Rs.77.50 crore.

** *Plan Provision indicates actual Plan expenditure of that 1st four years of 10th Plan and Budget Estimates of 2006-07.*

Suitable scaling up of Plan outlays for other Central Sector Schemes of the Department, namely, IEC and International Exchange is also proposed. The proposal for setting up of a National Ayurveda Hospital in Delhi and North-Eastern Institute of Ayurveda and Homoeopathy was conceived in the 10th Plan. Land has also been acquired for the National Ayurveda Hospital in Delhi and detailed project reports for these projects are being revised keeping in view the advice received from Expenditure Finance Committee. A Plan provision of Rs.75.00 crore for National Ayurveda Hospital in Delhi and another Rs.75.00 crore from out of that 10% NE corpus for North-Eastern Institute of Ayurveda and Homoeopathy is proposed in the 11th Plan.

The Department has showed in the last two years of the 10th Plan that it has the capacity to plan for and utilize higher Plan allocation in priority areas of strengthening of AYUSH institutions, standardization and quality control of AYUSH medicines, mainstreaming of AYUSH in national health care delivery network and focussed research for meeting national health goals. Keeping in view the enhanced Plan provisions a second post of Joint Secretary was sanctioned in the Department for strengthening planning, coordination and monitoring of various Central Sector and Centrally Sponsored Schemes. The posts of Directors, CCRUM/CCRAS/CCRH and the posts of Director of National Institutes were upgraded in the last two years of the 10th Plan and the proposal to upgrade the post of Director, PLIM to the Joint Secretary level is on the anvil. Due to sustained efforts, the Department has been able to find regular Directors for its

research councils and autonomous institutions and fill up such vacancies timely. The Department of AYUSH has been maintaining a constant dialogue with all the stakeholders including the AYUSH industry. Successful launching of the Golden Triangle research initiative in collaboration with the ICMR, CSIR and creation of Traditional Knowledge Digital Library (TKDL) for defensive protection of ASU classical formulations from misappropriation are indicative of the fact that the Department of AYUSH has been providing effective leadership and momentum to the scientific validation and mainstreaming of AYUSH systems in the national health care delivery network. Keeping in view the tremendous potential of these systems for better health care for Indian citizens and for obtaining a better share of the world herbal market, these systems need to be supported by a quantum jump in Plan funding of the various Central Sector and Centrally Sponsored Schemes of the Department of AYUSH. Accordingly, it is proposed to scale up Plan provision for Department of AYUSH from Rs.1057.26 crore in the 10th Plan to Rs.2486.45 crore in the 11th Plan. The Department has been very cautious and realistic in making its Plan projections for 11th Plan and it is hoped that by improving utilization of Plan funds and the quality of Plan expenditure the Department would be able to come back to the Planning Commission for raising its Plan provision midway during the 11th Plan.

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DEPARTMENT OF AYUSH

MODIFIED SCHEMES IN XI FIVE YEAR PLAN

CENTRALLY SPONSORED SCHEMES

1. DEVELOPMENT AND UPGRADATION OF AYUSH INSTITUTES/COLLEGES

This is one of the Centrally Sponsored Schemes being implemented by the Department for Development of AYUSH Institutions. This Scheme has been in operation since last three plan periods and the present plan period. The scheme has following components:-

(i) Development of UG colleges.
(ii) Assistance to P.G. Medical Education
(iii) Re-orientation Training Programme for AYUSH Personnel.
(iv) Renovation and strengthening of Hospital wards of Govt./ Govt. aided teaching
(v) Establishment of computer laboratory.
(vi) (vi) Up-gradation of academy institutes to the status model Institutes of AYUSH.

(i) Development of UG colleges.

Assistance for equipment (Rs. 10 lakhs per college), library books (Rs. 2 lakhs per college), capital works (Rs. 50 lakhs per college) and a corpus fund Rs. 5 lakhs (one time assistance) is provided under the Development of UG College scheme. There is provision for another add-on component of Pharmacy and Nursing Education but the same would be implemented only after the Pharmacy and Nursing Education is regulated by statutory council. Only Govt./ Govt. aided colleges are eligible for assistance for capital The assistance under this scheme is to be provided only once in the 10^{th} Plan period.

(ii)Assistance to PG Medical Education

Under this scheme only new Department for new Government aided institutes are eligible to receive grant for a period of five years. The assistance is given for staffing, stipend and also to meet sum non-recurring expenditure.

(iii)Reorientation Training programme of AYUSH Personnel

Government/Pvt./NGO AYUSH institutions are eligible to take up this training programme teachers and doctors though from Government/Government aided private and non-aided pvt. Institutions AYUSH are also available, preference will be given Government, colleges. Under this scheme rate of assistance as well as size of batch varies from category to category.

(iv)Renovation and strengthening of Hospital wards of Govt./ Govt. aided teaching Hospitals of AYUSH.

One time financial assistance upto Rs. 20 lakhs for hospital will be admissible for Government. Institutions and Rs. 10 lakhs for Government aided institutions.

(v) Establishment of computer laboratory.

Use of information technology in promoting the educational standards is main aim of the scheme. Rs. 10.00 lakhs is provided as assistance to existing Government PG colleges for setting up small computer laboratory with five P.C. alongwith other prescribed equipments.

(vii) Up-gradation of academy institutes to the status model Institutes of AYUSH.

The scheme envisages development of one Model Institute of AYUSH per system per state during the 10th plan. Government Institutes recognized by the Central Council at least for 10 years and fulfilling at least 50% Council norms are eligible for assistance. A total of Rs. 3 crores is admissible for capital works (Rs. 1.5 crores) Machinery, equipment and computers (Rs. 1 crores), Books etc. (Rs. 10 lakhs) and staffing (Rs. 60 lakhs).

The total outlay for the scheme during the 10th Plan was Rs. 120 crores. During the first four years of the 10th Plan, the total expenditure was Rs. 98.08 crores. Thus the total expenditure is likely to exceed the original outlay for the 10th plan. During the first four years the number of colleges assisted under the scheme was 434. 2 statement indicating the physical and financial achievements are enclosed as **Annexure I & II.**

XIth Plan Proposal

So far continuation of these schemes during the XIth Plan is concerned, it is felt that existence of so many components for the same purpose is not required. In view of the past experience of implementing these schemes, this Department is of the view that instead of attending to a small component of assistance required for various AYUSH Institutions, it would be appropriate to concentrate on the overall development of these Institutions so that they may be in a position to impart quality education in AYUSH systems and also contribute to the effectiveness and spread of the Indian Medicine Systems. This would result in better utilization of the funds and the results are likely to be tangible.

To achieve the above goal it is felt that instead of existing 6 components, the department may assist only two categories colleges i.e. U.G. Colleges & P.G. Colleges and provide for fixed amount of assistance to be spent on the items actually needed by them on the basis of a master plan. All colleges would be accredited and only those colleges which are viable and can maintain proper standards would be supported. For this purpose a detailed list of the activities /items can be drawn and the colleges should have flexibility in choosing from the same as per their needs. Besides we may have a third component pertaining to model institutes. Under this component some good colleges may be selected and developed into model institutes which would be utilized as Centre of Excellence. For U. G. Colleges the assistance may be Rs. 2 crores per college and for P.G. Colleges the limit may be Rs. 3 crores. So far as development of model institutes is concerned the amount will be decided on the basis of the college specific plan with an upper limit of Rs. 5 crores. Then under fourth component one time capital grant of Rs. 10.00 crores for institutions to States for starting AYUSH Pharmacy/Para Medical Courses in the existing AYUSH colleges is proposed to be provided during XIth Plan.

In effect we will have a scheme "Development of AYUSH institutions" with following four components:-

S No	Schemes	Rate at which assistance is to be given (Rs. in crores)	Tentative No. of Institutions to be assisted.	Likely expenditure (Rs. in crores)
1	Assistance to UG colleges	2.00	60	120
2	Assistance to P.G. Medical Education	3.00	40	120
3	Development of Model Institutes	5.00	25	125
4	One time capital grant to States for starting AYUSH Pharmacy/Para Medical courses in existing AYUSH colleges.	10.00	5	50
	Total			**415.00**

Yearwise financial projection is as follows:

Financial Year	Amount (Rs. in crores)
2007-2008	83.00
2008-2009	83.00
2009-2010	83.00
2010-2011	83.00
2011-2012	83.00
Total	**415.00**

The existing component of ROTP and CME shall be dealt under a Central Sector Scheme and a hence a Central Sector Scheme is proposed separately.

ANNEXURE - I

Grant-in-aid released during 2002-03 to 2005-06 for four years under Centrally Sponsored Scheme of Development of Institutions

(Figure in lakh)

Financial Year	UG Scheme	PG Scheme	ROTP/CME	Renovation	Model College	I.T.	Total
2002-2003	815.00 (34)	204.93 (16)	19.96 (15)	--	--	--	**1039.89** **(65)**
2003-2004	653.79 (25)	119.78 (4)	71.08 (27+15=42)	269.61 (14)	1286.00 (8)	50.00 (5)	**2450.26** **(98)**
2004-2005	800.00 (39)	200.00 (9)	54.17 (32 + 16 = 48)	100.00 (6)	1589.80 (16)	80.00 (8)	**2823.97** **(126)**
2005-2006	1256.52 (41)	208.04 (10)	124.95 (34+28=62)	220.09 (12)	1604.70 (12)	80.00 (8)	**3494.30** **(145)**
Total	3525.31 (139)	732.75 (39)	270.16 (167)	589.7 (32)	4480.50 (36)	210.00 (21)	**9808.42** **(434)**

Note: figure given in parameters shows the no. of institutions assisted under the scheme.

Annexure - II

Physical Targets and Achievements during first four years of Tenth Plan under Centrally Sponsored Scheme of Development of Institutions

Sl.No.	Name of the Scheme/ Project/ Programe	Unit	Tenth Plan approved Target (colleges to be assisted)	2002-03		2003-04		2004-05		2005-06	
				Target (colleges to be assisted)	Achievement (colleges assisted)	Target (colleges to be assisted)	Achievement (colleges assisted)	Target (colleges to be assisted)	Achievement (colleges assisted)	Target (colleges to be assisted)	Achievement (colleges assisted) (I^{st} quarter)
1	2	3	4	5	6	7	8	9	10	11	12
1	UG		140	35-40	34	40-45	25	20-25	39	28-30	41
2	PG		30	12-15	8+9*	18-20	1+3 *	6-7*	10	10-12*	10
3	ROTP/ CME		250	15	15	12-15	42	50-52	38	50-52	62
4	Renovation		70	--	--	12-15	14	14-16	6	35-40	12
5	State Model College		25	--	--	6	8	5-6	8	8-10*	12
6	IT			--	--	5-6	5	6-8	8	6-8	8

* New Colleges

2. HOSPITALS AND DISPENSARIES

The scheme has been designed with a view to make available the benefits of Ayurveda, Unani, Siddha, Yoga & Naturopathy and Homoeopathy to the public at large, so that people can exercise their choice in accessing the health services and to achieve this, it was felt necessary to encourage setting up of general and specialized treatment centers of ISM&H in the allopathic hospitals. Through this scheme the Central Government intends to encourage setting up of general and specialized treatment centers of ISM&H in allopathic hospitals and support the efforts of State Governments to improve the supply position of essential drugs in dispensaries situated in rural and backward areas, so that the faith of people in ISM&H could be enhanced.

During the Tenth Plan period so far, the Department sanctioned an amount of Rs 108.00 crores for setting up of 183 ISM Wings in District Hospitals, 44 Special Therapy Centres with Indoor facility and 348 Special Clinics of ISM&H with Specific Outdoor Treatment. An amount of Rs 145.00 crores has been sanctioned for supply of essential drugs to 26,000 AYUSH dispensaries during the period in the country.

In the implementation of this scheme has been observed that the implementing agencies i.e. the concerned hospitals and dispensaries complain about the delay in the receipt of money from the State Govt channels. To avoid this delay, the Planning Commission has approved distribution of funds through the State Govt Health Societies from the next Plan period onwards.The State Govts complain that they are finding it difficult to provide the manpower in the absence of any fund for this purpose.

XI PLAN PROPOSAL

The various components under the scheme Hospitals & Dispensaries are as follows:

Setting up of Speciality Therapy Centres and Speciality Clinics of ISM&H:

It was felt that the physical achievements relating to these schemes had been less than satisfactory which may be mainly due to the reason that State Governments were not able to provide for manpower component/ experts which are essentially needed for operationalization of these schemes. It is therefore essential to provide for manpower component on outsourcing or contractual basis. Hence, it is proposed that 10% of the grants given to States under the Scheme of Hospitals & Dispensaries may be used by States for hiring contractual Medical/Para Medical personnel during the XIth Plan period. The responsibility of the recurring expenditure beyond XIth Plan period will have to be borne by the States.

Setting up of ISM&H Wings in District Allopathic Hospitals:

Since operationalization of this scheme also depends on available of medical and paramedical staff which the State Governments are not normally able to provide for, it will be important to keep provision for manpower component viz medical and paramedical staff and enhance the overall ceiling of the scheme to Rs 40.00 lakhs in place of Rs 35.00 lakhs per ISM&H Wing.

At present, the execution of the scheme depends on the initiative of the state Government and is on pick and choose basis. If integration is to be effected in a realistic fashion and if a choice

is to be provided to the common man, opening of an AYUSH wing be made mandatory for all District Hospitals and for which funds should be given for all the District hospitals to all the States.

Strengthening of existing AYUSH healthcare facilities:

The Scheme of Hospital and Dispensaries should be extended to existing AYUSH Hospitals & Dispensaries also since at present it caters to only allopathic facilities. This will help in recovering and strengthening certain ailing Treatment and Patient care units which need equipment, infrastructure, medicine and training etc but the State Governments find it difficult to support. It is proposed to provide an assistance of Rs. 50.00 lakhs to AYUSH hospitals and 15.00 lakhs to AYUSH dispensaries for their upgradation.

Supply of essential medicines:

This is one of the very good schemes under which funds for providing AYUSH drugs in rural, backward and remote area dispensaries are given to the States. Under this scheme, an amount of Rs 25,000/- per annum, per dispensary is given which comes to only Rs 2083/- per month per dispensary and Rs 69/- per day per dispensary. Even if a meager strength of an average of 20 patients per dispensary per day is taken into account, the allocated sum comes to Rs 3.45 per patient per day. It is obvious enough that the amount is quite less and therefore it is recommended that it should be increased to Rs 50,000 per annum per dispensary. Besides, at present it is only the 'rural and backward area dispensaries' which are eligible for grant under this scheme despite Planning Commission agreeing to giving grants to all the AYUSH dispensaries, the requisite amendment in the scheme was not reflected and hence there is need to do so in the 11th Plan. It is also proposed to cover all dispensaries including CHCs/PHCs/District Hospitals having AYUSH wing and also existing AYUSH hospitals at those levels for supply of essential medicines. Even mobile dispensaries are proposed to be covered under this. Accordingly, it is proposed to provide essential AYUSH medicines to PHCs @ Rs. 1.00 lakh per annum, CHCs @ Rs. 2.00 lakh per annum and District Hospitals having AYUSH Wing/AYUSH Hospitals @ Rs. 3.00 lakhs per annum.

Since there is a proposal to provide funds for manpower also and to extend the scheme to cover not only Allopathic Hospitals but also for strengthening AYUSH Hospitals, the annual provision for the next plan period is tentatively projected as given below.

Year	Total Outlay during XIth

	Plan (Rs in crores)
2007-08	115
2008-09	120
2009-10	125
2010-11	130
2011-12	135
Total	**625**

This Scheme will re-enforce the Rural Health Mission by providing financial assistance to States both for mainstreaming of AYUSH in allopathic facilities as well as for upgradation of existing AYUSH hospitals and dispensaries.

3. DRUGS QUALITY CONTROL OF ASU & H DRUGS

The Scheme was implemented in the year 2000-01 of 9th five year plan with two sub-schemes.

1. To strengthen state Drug Testing Laboratories
2. To strengthen state Pharmacies of ASU&H drugs.

Under the scheme maximum of Rs.100.00 lakhs were provided to each State DTL and Pharmacies for following components i.e. renovation of building, procurement of sophisticated instruments and machines and human resource on contractual basis (for DTL only) The scheme was revised during the mid term appraisal of 10th five year plan and two more sub-schemes were added in the scheme with slight changes in original two sub-schemes which are as under:-

1. To establish/strengthen the State Drug Testing Laboratories for ASU&H drugs.
2. To establish /strengthen the State Pharmacies of ASU&H drugs.
3. To strengthen state Drug Controllers on ASU&H enforcement mechanism.
4. To assist AS&U drug manufacturing unit to improve their infrastructure to meet GMP requirement.

Under the sub-scheme No.1, State Drug Testing Laboratories for ASU&H drugs maximum of Rs. 150.00 Lakhs were assisted to each SDTL for the three components (Building, Machinery/equipment and manpower on contractual basis) Apart from the State Drug Testing Laboratories eminent Laboratories/universities laboratories/ research councils are also eligible for grant-in-aid to strengthen their AYUSH Department with a maximum of financial assistance of Rs. 85.00 Lakhs.

Under the sub-scheme No.2, to strengthen the State Pharmacies of ASU&H drugs. maximum of Rs. 200.00 Lakhs were provided to each state Pharmacies for two components i.e. Building as well as Machinery and Equipments. Apart from State Government Universities/ Institutions of ASU&H drugs, co-operative Pharmacies and Research Councils are also eligible for the Central assistance.

Under the sub-scheme No. 3, to strengthen state Drug Controllers on ASU&H enforcement mechanism, each State Government/Union territory are eligible for Grant-in-aid for five year for the salaries of one drug controller/Licensing Authority of ASU&H drugs, drug inspectors (one for 500 units), data entry operator, purchase of computer with printer and fax etc. expenditure on TA/DA/training and stationary etc.

Under the sub-scheme No.4, to assist AS&U drug manufacturing unit to improve their infrastructure to meet GMP requirement, every AS&U drug manufacturers were assisted with 20% incentive on the expenditure incurred by him for the infrastructure in terms of building and equipments made by them for getting GMP certificate. The maximum limit of the subsidy is Rs. 5.00 Lakhs.

During the Xth Plan, against the total outlay of Rs 45.40 crores under this scheme the expected expenditure/revised outlay is Rs 55.28 crores. During the 4 years of the 10th plan 8 State Drug Testing Laboratories, 15 State Pharmacies of ASU&H drugs were assisted, and till date 26 ASU State Drug Testing Laboratories and 43 State ASU&H Pharmacies were assisted. In addition 13 States have been assisted to start Enforcement Mechanism of ASU&H drugs and incentives to 45 AS&U drug manufacturers for getting GMP license have been given under GMP Scheme.

Fund have been released through respective state Governments but till date only 30% of the grantee institutes are functional/ partly functional due to the reasons as under:-

i) State Governments are not releasing the Grant-in-aid to the concerned grantee institute well in time.

ii) Grantee institute have to award building contract to Government body like PWD etc. after completing the codal formalities from their respective Government.

iii) Regarding procurement of sophisticated machinery and equipment grantee institute have again asked to their respective State Government to procure the instruments by tender basis or by rate contract basis.

XI PLAN PROPOSAL

To modify the scheme in 11th five year plan, following changes are proposed:-

1. Regarding sub-scheme No.1 and 2, the scheme may not be continued as such. Only second and third instalment will be released to States for completing the work of upgradation of Drug Testing Laboratories/State Pharmacies which were taken up during the Xth Plan.

2. Regarding sub-scheme No.3 no more grant will be released for manpower on contractual basis. Concerns have been expressed in the Parliament as well as in the media regarding weak quality control of AYUSH medicines. Emphasis on strengthening of State Drug Testing Laboratories has not yielded results intended. In the XIth Plan, it is proposed to institute a random testing of AYUSH medicines at the Central as well as at the State levels by involving NABL accredited laboratories spread over the country. It is proposed to assist the State by actual reimbursement of expenditure incurred on random testing of AYUSH medicines through NABL laboratories @ Rs. 500 to Rs. 1000 per sample depending upon various parameters. Under this Scheme, Department of AYUSH's laboratories PLIM, Mohan HPL will also be eligible to do the testing and avail the assistance.

3. Under the existing Drug Quality Control Scheme in Xth Plan a meager assistance of Rs. 5.00 lakhs as subsidy was provided to AYUSH manufacturing units for becoming GMP compliant.

Now, the Department of AYUSH has made testing for raw materials/finished products/heavy metals etc. mandatory for which manufacturing units require costly equipments like Atomic Absorption Spectometer, HPTLC, HPLC, GLC etc. Accordingly, it is proposed to provide a back ended subsidy of Rs. 50.00 lakhs or 50% of the total project cost whichever is less, on establishment of in-house Drug Quality Control/R&D laboratory. The assistance to be provided only to those ASU units having annual turnover below Rs. 10.00 crores. This subsidy will be released to AYUSH manufacturing units through a Scheduled Bank on installation of the requisite equipment and on submission of report by any State Licensing Authority or a NABL laboratory to the effect that the such unit has started testing of its raw materials/finished products in their in-house drug quality control/R&D labs.

The projected outlay for the XIth Plan is as following:

Year	2007-08	2008-09	2009-10	2010-11	2011-12	Total
Outlay(Rs crores)	20.00	25.00	30.00	35.00	40.00	150.00

CENTRAL SECTOR SCHEMES

STRENGTHENING OF DEPTT. OF AYUSH

1. Secretariat Social Services

This is to meet the need of the Secretariat Services (salaries, travels, office expenses, rent etc.). To be continued to provide Secretariat support to the implementation of AYUSH programmes. The expenditure including B.E. 2006-07 in Xth Plan period is Rs. 21.88 crores. The projected outlay for XIth Plan is Rs. 30.00 crores.

2. Strengthening of Pharmacopoeial Committee on ASU

This is to lay down and update pharmacopoeial standards of Ayurveda, Siddha, Unani and Homoeopathy drugs and to prepare and update formulary of the drugs of these systems. The outlay/expenditure in Xth Plan is Rs. 5.37 crores.

To be continued as laying down pharmacopoeial standards of compound poly-herbal formulations is a priority area for development and acceptability of AYUSH systems. It is proposed to constitute a Pharmacopoeial Commission of Ayurveda/Siddha/Unani drugs. For this, a Plan expenditure of Rs. 8.00 crores is proposed for the XIth Plan.

EDUCATIONAL INSTITUTIONS

3. Institute of Post-Graduate Training & Research, Jamnagar (IPGTR).

The Institute of Post-Graduate Teaching & Research in Ayurveda(IPGTRA), Jamnagar is one of the constituents of Gujarat Ayurved University(GAU). It is one of the oldest P.G. teaching centre of Ayurveda. The institute is fully financed by the Government through grants-in-aid for its maintenance and development.

There are six teaching departments in the institute, which provide facility for teaching and research in 13 specialties for post-graduate degree and decorate degree. The admission capacity is 34. The institute also renders clinical patient care. During the X Plan , it provided medical treatment to more than 7 lac patients at IPD and OPD level, and produced more than 150 PG Ayurvedic doctors.

Expenditure in X Plan and XI Plan Outlay

Tenth Plan approved outlay	Expenditure/Outlay	XI Plan outlay proposed
Rs.5.50 crore	Rs.3.8 crore	10.00 crore

The savings has accrued on account of non-filling up of certain faculty posts, non-procurement of equipment/furniture, non-execution of some capital works.

The scheme may be continued during XI PLAN as it fulfills its objectives of imparting teaching, training and research in Ayurveda and also renders clinical patient care through OPDs, IPDs, and a 150-beddd hospital. This is one of the oldest institutes of Ayurveda in the country.

Break-up of XI Plan Outlay

Rs.in crores)

2007-08	2008-09	2009-2010	2010-2011	2011-2012	TOTAL
1.50	1.75	2.00	2.25	2.50	10.00

4. National Institute of Ayurveda, Jaipur (NIA)

The National Institute of Ayurveda established in 1976 at Jaipur is an apex Institute of Ayurveda for evolving high standard of teaching, training, research and patient care activities. It imparts education at the level of UG, PG and Ph.D.The admission capacity is 60 for U.G., 55 for P.G. and 12 seats for Ph.D. in 6 Specialities. The Institute is also involved in research activities and researches on Diabetes, Cancer, Vitiligo, AIDS have been started recently besides others.

The Institute has a 180 bedded hospital having OPD with Pathological, Bio-Chemical, ECG, CTMT, Spirometery, Sonography, Dental, Audio-meter facilities etc. There is a separate Panchakarma Hospital for specialised treatment. . Medical Camps are organised in the SC/ST inhabited districts of Rajasthan. During X Plan so far, the institute organized 145 mobile camps of variable durations; produced 400 graduates and post-graduates in Ayurveda and rendered clinical patient care at OPD and IPD levels to more than 4.50 lac patients. A Diploma Course in Ayurveda Compounder/Nurse Training has been started from 2004-2005.Post-Graduate Course started in 2 more subjects viz. Swastha Vritta and Panchakarma from 2004-2005.Panchakarma Department has been developed and furnished and necessary facilities are being provided to the patients.An international seminar on "Plant Based Medicine" was organized.

The scheme may be continued during XI Plan as it fulfils its objectives. Some of the Plans of the institute for XI Plan are:to acquire land for Herbal Garden and develop it for cultivation of rare and useful medicinal plants for teaching and research purpose;to establish National Repository

of Ayurvedic Drugs;to start short-term courses for foreign students;to start PG and regular Ph.D. courses in the remaining subjects;Construction of Panchakarma Hospital. ;Construction of PG(Girls) Hostel; Modernization of Yoga Unit to introduce Vyadhikshamatava (Immunology) and Swasthya (Mental Health) Unit for children To develop museum in Rasa Shastra Department etc

Outlay/ Expenditure in X Plan and Projection for XI Plan

Tenth Plan approved outlay	Expenditure	XI Plan outlay Projection
Rs.25.00 crore	Rs.28.96 crore	37.00 crore

Break-up of XI Plan Outlay

(Rs. in crores)

2007-08	2008-09	2009-2010	2010-2011	2011-2012	TOTAL
7.50	7.50	7.50	7.50	7.00	37.00

5. Rashtriya Ayurved Vidyapeeth, New Delhi (RAV)

Rashtriya Ayurveda Vidyapeeth (RAV) is an autonomous organization under the Department of AYUSH and fully funded by the Government of India. It started functioning from the year 1991.

The Vidyapeeth was established with the main aim to preserve and arrange transfer of Ayurvedic knowledge from eminent scholars, and traditional Vaidyas who do or do not have formal qualifications but trained under Gurukula system, to the younger generation through the Indian traditional system of education 'Guru Shishya Parampara" and to prepare experts in Ayurveda with clinical skills.

Guru Shishya Parampara is the traditional method of residential form of education wherein the Shishya remains with his Guru as a family member and gets the education as a true learner. This system gradually vanished with the disappearance of Gurukuls. However, it is still a very effective means of transfer of knowledge from the Gurus (teachers) to Shishyas (students). RAV is making efforts to revive the system through its courses.In colleges and institutions only relevant portions of the Samhitas (texts of Ayurveda) are being taught in the form of syllabus. Guru Shishya Parampara programme of RAV provides the students to study whole text and get adequate knowledge of selected Samhita and its Teeka (commentary) and traditional skill of the Ayurvedic clinical practice. The Shishyas get sufficient time for interaction and discussion on the issues taken for study.

RAV is running two types of courses:

Acharya Guru Shishya Parampara : Two-year course of Member of Rashtriya Ayurveda Vidyapeeth (MRAV). During the 10th Plan, RAV trained 18 scholars in this course:

Chikitsak Guru shishya Parampara : One-year course of Certificate of Rashtriya Ayurveda Vidyapeeth (CRAV):

During the 10th Plan RAV produced 120 young graduates trained under these Vaidyas.

During the current Plan 52 scholars and Vaidyas have been awarded Fellow of Rashtriya Ayurveda Vidyapeeth (FRAV). Vidyapeeth conducts a Conference/ Seminar/ Workshop every year on a topic that requires discussion and exchange of the views and clinical experience on the diagnosis and treatment of the disease. So far Conferences/Seminars have been conducted on Kshara Sutra, Heart diseases, Ayurvedic Education, Training and Development, Nadi Vigyan, Fast Acting Ayurvedic Medicines and Techniques, Cancer, Shothahara Avam Jeevanu Nashak Ayurvedic medicines, AIDS, Thyroid disorders, Rasayana, Ayurvedic management of kidney and urinary disorders , Management of Hepato-biliary & Splenic disorders, Diabetes Mellitus and Mental Health through Ayurveda. On all the occasions the souvenirs with selected papers have been published.RAV has conducted 8 Interactive Workshops during the 10th Plan and released books of Questions and Answers.

PROPOSALS FOR XITH PLAN:

Continuation of Present activities: Attempts will be made to enroll more vaidyas and institutions that are practicing clinical skills that are required to be transferred.

Recognition of the courses: One of the main issues related to these courses is recognition of the courses. During the next Plan period attempts will be made to get the courses recognized by any university.

Teachers Training Centre: RAV may take up teacher training activity initially in different identified institution and later on the new campus of the institute.

Expenditure in X Plan

Tenth Plan approved outlay	Expenditure	XI Plan outlay proposed
Rs.3.00 crore (including salary component)	Rs. 4.80 crore	5.00 crore(excluding salary component*)

*It is submitted that its salary component may now be transferred to Non-Plan Budget in XIth Plan.

Break-up of XI Plan Outlay

(Rs. in crores)

2007-08	2008-09	2009-10	2010-11	2011-12	TOTAL
0.80	0.90	1.00	1.10	1.20	5.00

The institute fulfilled its objectives of promoting knowledge of Ayurveda, organizing workshops, seminars etc. and trained UG/PG students through informal method of training and hence

need to be continued during XI plan as well. It is submitted that its salary component may now be transferred to NON-PLAN Budget w.e.f. 2007-08.

6. National Institute of Siddha, Chennai (NIS)

The Siddha the oldest system of traditional medicine is widely prevalent and practised in Tamil Nadu. The only institute of national character in Siddha system fulfilling the mandate of National Health Policy of establishing the national institutes in all systems of AYUSH National Institute of Siddha is a premier institute for education, research and development of Siddha System of Medicine. The proposal to establish a National Institute of Siddha(NIS) was taken up during the 9th Five Year Plan period with the Govt. of Tamil Nadu by Govt. of India for which State Govt. of Tamil Nadu provided 14.78 acres of land at Tambarrm, Chennai.The Institute is being developed by the Government as a joint venture with the Government of Tamil Nadu and share the capital expenditure in the ratio of 60:40 and the recurring expenditure in the ratio of 75:25.

The Institute has been become functional during 2004-05 Till date, 32 faculty posts (including Director) and 97 posts for Para Medical and administrative staff have been created/approved by the Ministry of Finance. The Institute imparts P.G. education in 6 subjects with admission capacity of 30 students per year from 30.9.04. Outdoor Patient Department and Pathological laboratories are functioning in full swing. There would be a 120-bedded hospital with OPD/IPD facility. It is expected to produce best quality physicians, teachers, researchers of Siddha who will be able to raise the standards of clinical care, education, research in Siddha system of medicine.

This Ministry has also accorded approval for construction of a 60-Seat Girls' Hostel at an estimated cost of Rs.1.89 crore. The Standing Finance Committee in its meeting held on 19.7.06 approved the construction of a 4-room guest house through CPWD at an estimated cost of Rs.99.00 lac. The construction may be completed during 06-07 and 07-08.

The scheme may be continued during XI Plan as well to fulfill its objective of producing post-graduate Siddha physicians, treating sufficient humanity, conducting research, etc. During XI Plan following facilities such as creation of Anatomy laboratory ,Animal House, Yoga Hall , Green House, Drug Testing Laboratory,etc to strengthen NIS are proposed to be established .

Outlay/Expenditure in X Plan and Outlay for XI Plan

X Plan outlay	Expenditure during X Plan	XI Plan Projection
Rs.25.00 crore	Rs.27.75 crore	20.00 crore

Break-up of XI Plan Outlay

(Rs. crores)

2007-08	2008-09	2009-10	2010-11	2011-12	TOTAL
3.00	3.50	4.00	4.50	5.00	20.00

7. National Institute of Homoeopathy, Kolkata (NIH)

To evolve and demonstrate high standard of teaching, research, treatment to the poor patients through Homoeopathic system of medicine.

To be continued as the Premier Institute of Homoeopathy imparting teaching, training and conducting research in Homoeopathy and rendering the tertiary hospital and clinical care.The Xth Plan outlay/expenditure is Rs. 36.50 crores. It is proposed for an outlay of Rs. 40.00 crore in XIth Plan.

8. National Institute of Unani Medicine, Bangalore (NIUM)

To promote the growth and development of Unani Medicine, to produce Post-Graduate and Research in Unani Medicine, to provide medical relief to the suffering humanity on no profit no loss basis etc.

To be continued as the Premier Institute of Unani imparting teaching, training and conducting research in Unani and rendering hospital and clinical care. On completion of the first phase the teaching has commenced in four subjects and 100 bedded hospital has become operationalised.. The construction activity of second phase has been taken up and on completion of second phase the Institute will have Post-Graduate teaching in another four subjects.

The Xth Plan outlay/expenditure is Rs. 21.00 crores. It is proposed to have an outlay of Rs. 25.00 crores in XIth Plan.

9. Morarji Desai National Institute of Yoga, New Delhi (MDNIY)

It acts as a centre of excellence in Yoga and is to develop, promote and propagate the science of Yoga. It also provides scientific education in Yoga leading to diploma and degree courses. It is to be engaged in treatment and research, clinical, fundamental and literary research in the field of Yoga.

To be continued as being a premier Institute of Yoga engaged in developing, promoting and propagating the science of Yoga and also imparting education in Yoga. In XIth Plan, a new scheme for Yoga Centre is to be started.

The outlay/for Xth Plan was Rs11.00 crores. It may be increased to Rs. 20.00 crores in XIth Plan including a token provision of Rs 2.00 crore for the yoga project being coming up at Gaziabad.

10. Vishwayatan Yogashram, New Delhi

A premier Institute of Yoga engaged in developing, promoting and propagating the science of Yoga and also imparting education in Yoga. Also engaged in clinical, fundamental and literary research in Yoga.

To be continued as in compliance with the Court Order salary/wages are being paid or to be paid till further court order to the employees of J&K unit accommodated in the premises of MDNIY, New Delhi.

As in Xth Plan, an outlay of Rs. 1.00 crores is projected for XIth Plan.

11. National Institute of Naturopathy, Pune (NIN)

It is for promotion and propagation of Naturopathy and also to encourage research in the field of Nature Cure treatment to prevent/cure diseases.

To be continued or handed over to the Govt. of Maharashtra if they are willing. Central Govt. has left it to the States to regulate Naturopathy.

The outlay/expenditure in Xth Plan is Rs. 7.68 crores. The projected outlay for the XIth Plan is Rs. 8.50 crores.

STATUTORY INSTITUTIONS

12. Central Council of Indian Medicine, New Delhi (CCIM)

Maintains Central Register of Ayurveda, Siddha and Unani. Responsibilities to lay down the minimum standards of education in these fields to recommend regarding permission of a new college, increase of seats or starting of a new or higher course Also responsible for laying down the standards of professional conduct, etiquette and code of ethics to be observed by the practioners of these systems.

To be continued as this is a statutory body for regulation of standards of education in the Indian Systems of Medicine.

The outlay for Xth Plan was Rs. 0.60 crores. It is proposed to increase to Rs. 0.70 crores in XIth Plan.

13. Central Council of Homoeopathy, New Delhi (CCH)

Maintains Central Register of Homoeopathy.. Responsibilities to lay down the minimum standards of education in this field to recommend regarding permission of a new college, increase of seats or starting of a new or higher course Also responsible for laying down the standards of professional conduct, etiquette and code of ethics to be observed by the practioners of these systems.

To be continued as this is a statutory body for regulation of standards of education in Homoeopathy.

The expenditure/outlay in Xth Plan is Rs. 0.20 crores. A provision of Rs. 0.25 crores is projected for XIth Plan.

14. Central Pharmacy Council for AYUSH

To regulate the education and practice of pharmacy in Indian Medicines and Homoeopathy. A Bill for the establishment of the Council is pending with Parliament. A provision of Rs. 2.00 crores is proposed for the XIth Plan.

RESEARCH COUNCILS

15. Central Council for Research in Ayurveda & Siddha, New Delhi (CCRAS)

For Clinical research including health care research, drug research, survey of medicinal plants, drug standardization, literary research and family welfare research programmes.

To be continued.This is an apex council for research in Ayurveda and Siddha. Research is a continuing process and CCRAS being the only organization in the Govt. sector for conducting research in Ayurveda and Siddha system of medicine needs to carry out its work to fulfill the

objectives. In the process of conducting research through its regional CRIs/RRIs/units spread all over the country, it is not only conducting research but also providing clinical facilities in Ayurveda and Siddha to the general public.The Xth Plan outlay/expenditure is Rs. 54.37 crores.

In view of the permission granted to CCRAS to fill up the vacancies arisen since last three years, the provision for payment of the salaries of scientific and administrative staff recruited for the plan units has to be made. Also increase in the number of Extra Mural Projects, research activities is expected. It is also proposed to get the NABL accredition of its five laboratories and hence these laboratories are to be equipped with high value equipments and instruments. Also, the capital works in six places of its institutes for having own building has to be undertaken in the XIth Plan.

In view of the above proposals, an outlay of Rs. 100.00 crores for XIth Plan is projected. The year-wise outlay is as follows:

Year	Outlay in Rs. crores
2007-08	18.00
2008-09	19.00
2009-2010	20.00
2010-2011	21.00
2011-2012	22.00
Total	**100.00**

16. Central Council for Research in Unani Medicine, New Delhi (CCRUM)

The Central Council for Research in Unani Medicine which was established in the year 1979 is a premier institution of research in Unani System of Medicine. This Council is inter-alia engaged in multi-faceted research activities in the areas of Clinical Research including Clinico-Pharmacology, Drug Standardization and Quality Control, Literary Research including Medico Historical Research and Survey and Cultivation of Medicinal Plants, through a network of 25 research centres functioning in different parts of the country.

During the 10th Five Year Plan there have been some significant leads where the Council have finalized Clinical Studies on 20 drugs out of which monographs on 12 were published and 8 have been applied for patent rights. 17 other formulations out of Kit Medicines have been filed for patents and have also been commercially exploited. Besides continuing General OPD, Mobile Clinical Research, School Health and the OPD at Dr. RML Hospital, New Delhi the Council have completed Phase-I study of the fundamental research pertaining to Humors and Temperaments. SoPs are being worked out for Regimental Therapy.

In the collaborative research programme with CSIR on development of bio-active molecules for Unani formulations, 54 formulations were passed on to the CSIR in which in-vitro and in-vivo activities have been observed in 16 samples. The work is in progress. The Council have been able to finalize Pharmacological and Toxicological studies on 10 drugs during this plan period. Under the EMR Programme, 15 projects have been allotted during the plan period and work on 11 projects has been completed and the reports have already been sent for printing.4050 medicinal folk claims have been collected and documented. In the Literary Research Programme 20 manuscripts/books have been translated from Arabic and Persian Languages and have been published.

With a view to streamline the functioning and to accelerate the pace of work, the Council is presently in a mode of re-organization of different research schemes and number of centres is being brought down from present 25 to 12. The Council would like to continue the research work in 3 Central Research Institutes and 9 Regional Research Institutes and Drug Standardization Research

Institutes. These institutions will be further developed to provide for optimum facilities for multi-faceted research programme, as envisaged in the documents for the 11th Five Year Plan. However, based on the availability of funds, the Council would like to develop independent institutes for molecular pharmacology and upgrade different Institutes in terms of Equipments and Manpower. Apart from designating the existing institutes for fundamental research, for Regimental Therapy, for Metabolic Disorders, Skin Disorders and Musculo-Skeleton disorders and cardiac ailments.

The Drug Standardization Research Programme shall include the standardization of classical formulations included in the National Formulary of Unani Medicine. 300 formulations will be taken up for quality standards during XI five year plan. The work shall include standardization of classical formulations, safety studies and upgradation of three laboratories. The Council will also take up DNA finger printing and HPTLC of single and compound formulations and this will be an important segment of this programme.

The survey and cultivation of medicinal plants programme would be continued with more emphasis of having pharmacological survey of medicinal plants and raw drugs. The collection of information of Unani Medicinal Plants in different forests areas in establishing a separate referral centre for confirmation of botanical identity will be an important segment besides setting up of 2 Tissue Culture Labs at Srinagar and Hyderabad attached to Council's Institutes.The Council will take up construction of buildings for CRIUMs at New Delhi and Lucknow, RRIUMs at Silchar, Bhadrak, Allahabad and Patna during the 11th Five Year Plan.

The X Plan expected expenditure for the full period is Rs 59.45 crores. An outlay of Rs.90.00 crores is projected for the 11th Five Year Plan.

The year-wise outlay is as following

Year	Outlay in Rs. crores
2007-08	16.00
2008-09	17.00
2009-2010	18.00
2010-2011	19.00
2011-2012	20.00
Total	**90.00**

17. Central Council for Research in Yoga & Naturopathy, New Delhi (CCRYN)

The objective of the Council is to conduct Scientific Clinical Research to verify the efficacy of Yoga & Naturopathy in treatment of various disorders; Publication of ancient Yoga & Naturopathy texts and meaningful standard literature based on modern scientific research. To disseminate the knowledge of Yoga & Naturopathy among common public as well as professionals. To disseminate the knowledge of Yoga & Naturopathy among common public as well as professionals.

To be continued. This is an apex council for research in Yoga and Naturopathy. Research is a continuing process and CCRYN being the only organization in the Govt. sector for conducting research in Yoga and Naturopathy needs to carry out its work to fulfill the objectives.

The Xth Plan outlay is Rs. 10.00 crores. Like other Councils, CCRYN at present do not have any regional research institutes. To begin with, one CRI/RRI may be opened in South and East Zone each in XI Plan. It may be mentioned that CCRYN is committed to getadequate land free of cost from State Govt. It is proposed to identify Yoga and Naturopathy institutions of excellence in various parts of the country for involving them in training and research in Yoga and Naturopathy. In view of this, the Budget provision for XIth Plan is proposed to increased to Rs. 25.00 crores.

The year-wise details are as following:

Year	Outlay in Rs. crores
2007-08	4.00
2008-09	4.50
2009-2010	5.00
2010-2011	5.50
2011-2012	6.00
Total	**25.00**

18. Central Council for Research in Homoeopathy, New Delhi (CCRH)

The objectives of the Council are formulation of pattern of research on scientific lines in Homoeopathy and to initiate, aid, develop and co-ordinate scientific research in fundamental as well as applied aspects of Homoeopathy, to promote and assist institution of research for the study of diseases, their prevention, causation and their remedies. The Council is carrying out its objectives and functions through the network of Central Research Institutes, Regional Research Institutes/Units.

To be continued This is an apex council for research in Homoeopathy. Research is a continuing process and CCRH being the only organization in the Govt. sector for conducting research in Homoeopathy needs to carry out its work to fulfill the objectives. In the process of conducting research through its regional CRIs/RRIs/units spread all over the country, it is not only conducting research but also providing clinical facilities in Homoeopathy to the general public.

During Xth Plan against an outlay of Rs. 22.00 crores, expenditure is expected to be Rs. 37.39 crores.

In XIth Plan, additional expenditure is expected towards appointment of honorary Consultants, outsourcing of laboratory investigation, upgradation of laboratories of institutes, collaborative studies, strengthening of staff component etc.

In view of above, an outlay of Rs. 77.50 crores is projected for XIth Plan. The year-wise details are as following:

Year	Outlay in Rs. crores
2007-08	13.50
2008-09	14.50
2009-2010	15.50
2010-2011	16.50
2011-2012	17.50

Total	**77.50**

19. Central Councils' Combined Building Complex

The Cell is formed for the maintenance of the building located in Janakpuri, New Delhi housing the research councils and statutory councils of the Department of AYUSH.

To be continued as this Cell is formed specifically to co-ordinate the maintenance of the building with CPWD, local Municipal Authorities and other Local Govt./Semi-Govt. organizations. In Xth Plan expenditure of Rs. 7.92 crores is expected against an outlay of Rs. 6.00 crores. During XIth Plan, it is proposed to construct or purchase a five bedroom guest house for providing accommodation to visiting experts/guest faculty at Delhi to facilitate the research and pharmacopoeial work of the Department and its Research Councils. During XIth Plan, outlay of Rs. 15.00 crore is proposed.

20. Extra Mural Research Projects through Research Institutions

The scheme aims at utilizing the potential of research institutions in the country. To supplement the Extra-Mural Research by encouraging Research Institutions/Researchers to carry out Extra-Mural Research in priority areas. To be transferred from the Department of AYUSH to AYUSH Research Councils.

During Xth Plan, expenditure/outlay is Rs. 30.86 crores. A provision of Rs. 35.00 crores is projected for XIth Plan.

21. Patent Cell for AYUSH Intellectual Property Rights (in TKDL)

TKDL is collaborative project of National Institute of Science, Communication and Information Resources (NISCAIR), Department of AYUSH & Department of IP&P to establish Traditional Knowledge Digital Library (TKDL) of Ayurveda, Siddha, Unani and Yoga so as to prevent mis-appropriation of India's rich heritage of Traditional knowledge.

So far Ist phase of TKDL (Ay.) comprising 36000 formulations from 14 Ayurvedic Text have been completed in 5 international languages, i.e. English, French, German, Spanish and Japanese in patent application format. 2nd phase of TKDL (Ay.) is in progress so far more 34,000 formulations have been identified from the Ay. text. Transcription and scanning work is in progress. The TKDL Unani, Siddha and Yoga have also been undertaken. This work is likely to be completed in the first year of the 11th Plan.

During Xth Plan expenditure is Rs. 7.67 crores against outlay of Rs. 1.50 crores. The projected outlay for XIth Plan is Rs. 1.50 crores.

22. Survey on Usage & Acceptability of AYUSH Systems

For conducting survey on usage and acceptability of AYUSH System

This scheme may be named as "Surveys/Studies on AYUSH Related Subjects/Schemes". In the XI Plan, concurrent evaluation/monitoring of all AYUSH schemes, accreditation mechanism for AYUSH institutions may be taken up through independent agencies. During XIth Plan, an outlay of Rs. 2.00 crore is proposed.

23. National Ayurvedic Hospital in Delhi

A state-of-the-art **All India Institute of Ayurveda(NAH)** is being set up at New Delhi to provide quality patient care services under the Ayurvedic system of medicine. It will also act as a referral institution and would be developed as a "Centre of Excellence", in order to set highest standards of patient care, research in addition to functioning as a model collaborative centre.

Delhi Development Authority has allotted 10.50 acres of land near Appollo Hospital at Sarita Vihar, New Delhi. The foundation stone laying ceremony was performed by the Hon'ble Vice-President of India, Shri Bhairon Singh Shekhawat on 14th February, 2004 .

The Expenditure Finance Committee (EFC) in its meeting held under the Chairpersonship of Secretary(Expr.) considered the proposal on 3.10.2005. The EFC after comprehensive discussions recommended the proposal in-principle subject to certain observations. Concept Paper/DFR is being revised in the light of EFC directions. The revised proposal may be brought back to EFC in due course. Accordingly, HSCC(I) Ltd. has been engaged to formulate a Detailed Project Report, a draft of which has been received and is under consideration in the Department. The institute is to be established during XI Plan.

Expenditure in X Plan and Projection for XI Plan

(Rs. in crores)

Tenth Plan approved outlay	Expenditure	XI Plan
15.00	14.10	75.00

Break-up of XI Plan Outlay(tentative)

(Rs. in crores)

2007-08	2008-09	2009-10	2010-11	2011-12	TOTAL
20.00	20.00	15.00	10.00	10.00	75.00

24. Expansion of CGHS dispensaries

To provide benefits and effectiveness of AYUSH systems to CGHS beneficiaries in different parts of the world.

Implementation of this scheme is hampered due to non-recruitment of AYUSH doctors by CGHS. In the XIth Plan it may be continued by outsourcing. The projected outlay for XIth Plan is Rs. 7.00 crores.

25. Ayurveda Hospital, Lodhi Road

The CGHS Ayurveda Hospital with 25 beds was established in the year 1978 on the recommendation of the Estimate Committee of 5th Lok Sabha in its 57th report for providing indoor facilities to CGHS beneficiaries in Delhi. The functioning/administration were transferred to this Department in July, 2002. In order to provide better indoor facilities to increased number of patients, it was decided to increase the bed capacity of the hospital to 50 beds. However, the same could not be done because of non-availability of requisite manpower.

It has to be appreciated that the hospital care in AYUSH sector is basically manpower centric. Further, the dual authority to be exercised by the Department of AYUSH in addition to the

CGHS has come to be seen more as an impediment rather than a helping agent in the smooth functioning of the unit.

It is desirable to outsource the services of the hospital completely or converted to a public-private partnership model. In XIth Plan, a provision of Rs. 6.50 crore is projected.

26. National Board for Medicinal Plants

The NMPB implements Promotional and Contractual Farming schemes for providing financial assistance for activities like Survey and Inventorisation, In-situ conservation, R&D, production of QPM and cultivation. Against a 10th Plan outlay of Rs. 93.50 crores, the expenditure so far is Rs. 109 crores.

Evaluation of NMPB Schemes:

Evaluation of scheme has highlighted the positive impact of the programme with regard to the cultivation initiated by the farmers in a number of states like Rajasthan and Madhya Pradesh. Though a lot of awareness has been created, there are short comings particularly with regard to timely dispersal of subsidy, weak monitoring by SMPBs due to inadequate manpower and structure, larger farmers benefiting more as compared to the smaller farmers and weak marketing support.

Proposals for the Eleventh Plan:

(a) It is proposed to cover 40,000 hectares of forest area in different forest types and agro-climatic zones. This is sought to be achieved through JFM/Van Panchayats who will be supported with infrastructure for value addition and marketing. In addition it is proposed to establish 100 gene banks in different agro climatic regions and forest types targeting top 300 species of medicinal plants identified on the basis of their conservation status, and market demand These will work as the repositories of the germ plasm of medicinal plants, besides being the source of quality seeds.

(b) During the 11th Five Year Plan it is proposed to cover 30,000 hectares of area with Herbal Gardens in 10 states. This is proposed to be done by merging the Vanaspati Van scheme presently being implemented by the Department of family Welfare with the NMPB Scheme.

(c) During the 11th Five Year Plan it is proposed to cover 1,20,000 hectares under cultivation under Contract Farming with financial support from the Board. Out of this, 90,000 hectares is proposed to be done in six Medicinal Plants Processing Zones and the balance 30,000 hectares in States/areas not covered under MPZs. Considering the higher outlays available under NHM it is proposed to suggest additional 1,50,000 hectares to be covered with medicinal and aromatic plants under NHM during the 11th plan. Thus, in all total area proposed to be brought under cultivation with medicinal and aromatic plants during the 11th Plan will be 2,70,000 hectares.

(d) It is proposed to set up six Medicinal Plants Processing Zones during the 11th Five Year Plan with the following activities:

(i) Setting up six Medicinal Plants Processing Zones in different agro-climatic zones.
(ii) Identification of 20 species of medicinal plants for different agro-climatic zones.
(iii) Cultivation @ of 15,000 hectares per zone = 90,000 hectares.
(iv) Post Harvest Management (Storage cum drying, grading, sorting etc.).
(v) Marketing (Price support, setting up mandies, brand promotion etc.).
(vi) Extension (Quality Planting Materials, training and farmers' mobilization).
(vii) Augment infrastructure in existing Agri-Export Zones to make them suitable for requirements of medicinal Plants Sector.

(e) Evolve and notify Good Agriculture Practices (GAPs), Good Collection Practices (GCPs), Good Storage Practices (GSPs) for medicinal plants. These will consists of two sets of guidelines. There will be generic guidelines followed by species specific GAPs/GCPs/GSPs for the major medicinal plants under cultivation for which monographs are proposed to be prepared with the help of the Research Institute/ Universities having expertise in the subject. In all 100 monographs are proposed to be prepared during the 11th Plan. It is also proposed to fund R & D so as to develop protocols for sustainable harvest of such medicinal plants which should include such plant parts which may not involve destructive harvesting. It is proposed to cover 20 species during the 11th Plan.

(f) It is proposed to identify agencies in the government and non-Government sector, backed up by independent certification, which will be used as focal points for raising nurseries and supplying Quality Planting Material to the farmers and cultivators.

(g) Independent Certification mechanism is proposed to be put in place which will not benefit the growers but also the manufacturers and users of medicinal plants. For small and marginal farmers, group certification of GACPs and organic farming backed by government support may have to be considered. It is proposed to provide financial support for strengthening testing labs where they already exist and set up new ones preferably through a public private parternership mechanism.

(h) A network of storage godowns and semi processing facilities near the major collection centres and cultivation areas, managed either by government, PSU, Co-operative Federations or Panchayats will go a long way in quality aw material being made available to the manufacturers besides improving the safety and efficacy of the final product. It is proposed to take up projects for post harvest management and capacity building the thrust areas of the sector in areas not covered by MPZs.

(i) R&D activity is being supported in a substantial way by CSIR, DBT, DST, ICFRE and ICAR through their research institutes, regional research institutes, research laboratories also. This is expected to continue during the 11th Plan.

(j) A Venture Capital fund/Technology Upgradation fund of the size of Rs. 200-300 crores is required to be created for modernization of Ayush/Herbal industry. The scope of the scheme of crop insurance should be enlarged to cover medicinal plants. It is proposed that the uniform exemption of VAT/sales tax regime should be introduced for medicinal plants to give a boost to the sector and its trade within the country. This would be in line with the Government exemption of essential food related commodities from VAT incidence.

(k) In order to fulfill the large mandate of the Board the existing organizational structure of the Board is under review through a Consultant. Based on the report of the consultant, the matter is proposed to taken up with the Cabinet for appropriate decision.

MODIFIED SCHEME IN XI PLAN.

The existing Central Sector Scheme of Medicinal Plants Board is proposed to be bifurcated into **two schemes** as follows:

A. Central Sector Scheme for conservation, promotion and development of medicinal plants. This scheme will be 100% centrally funded and cover the follows activities:

- In-situ/Ex-situ conservation.
- Community herbal gardens (including Vanaspati Vans).
- Research & Development.

- Monographs on Good Agriculture/Collection Practices (GACP), Good Storage Practices (GSP), Good Harvesting Practices (GHP).
- Independent certification of planting material, cultivation practices and quality of raw material.
- IEC.
- Monographs on medicinal plants and registration thereof in major importing countries.
- Market surveys.

B. Centrally Sponsored Scheme for cultivation, processing, value addition, marketing of medicinal plants. This scheme will be 100% centrally funded. As a Centrally sponsored scheme this will ensure better planning, appraisal and implementation by the State Government while at the same time, the Central Government retaining the authority to control and monitor the outputs and outcomes. Following activities will be supported under the Scheme:

- Contractual Farming/cultivation.
- Support for processing, semi-processing/Value addition, ware houses and packaging.
- Marketing support by way of minimum support price.
- Support for brand promotion.

(l) <u>Financial outlays:</u>

A. Central Sector Scheme on Conservation, cultivation, processing, value addition, marketing of medicinal plants.

#	Activity	Rate Per Unit (in Rs.)	Physical Target	Outlay (Rs. in Crores)
i.	Conservation/Regeneration hectares)	20,000/-	20,000	40
ii.	Gene Banks (100 hectares each)	20,000/-	50	10
iii.	Community herbal gardens (500 hectares each)	10,000,000/-	10 nos.	10
iv.	R & D		Lump sum	15
v.	Quality control, standardization and certification		Lump sum	15
vi.	IEC		Lump sum	10
vii.	Organisation, IT etc.		Lump sum	15
	Total			**115**

B. Centrally Sponsored Scheme for cultivation, processing, value addition, marketing of medicinal plants.

#	Activity	Rate Per Unit	Physical Target	Outlay (Rs. in Crores)

		(in Rs.)		
i.	Cultivation (hectares)	30,000	1,00,000	300
ii.	Post Harvest Management and Marketing support		Lump sum	50
	Total			**350.00**

YEARWISE OUTLAY

#	Scheme	Year wise Outlay					Total (Rs. in Crores)
		2007-08	2008-09	2009-10	2010-11	2011-12	
i	**Central Sector** Scheme on conservation and development of medicinal plants	15	25	25	25	25	115
ii	**Centrally sponsored** scheme on cultivation etc.	60	65	70	75	80	350
	Total	**75**	**90**	**95**	**100**	**105**	**465**

STRENGTHENING OF PHARMACOPOEIAL LABROATORIES

27. Pharmacopoeia Laboratory of Indian Medicine, Ghaziabad (PLIM)

PLIM is a National level laboratory set up for laying down standards for identification of Ayurvedic drugs etc. and for testing of these medicines for enforcement of quality control to implement Drugs & Cosmetics Act and Rules at the Central level. It is a recognized Drug Testing Laboratory for Ayurvedic, Unani and Siddha medicines for whole of India. It is also recognized as a scientific and technological institute/organization by the Department of Science & Technology. The laboratory is also engaged in work pertaining to survey and introduction/cultivation of medicinal plants.

In the Xth Plan, an outlay of Rs. 1.78 crores was made. A new building has been constructed and set of equipments has been purchased from the Scheme of Strengthening of PLIM and eight new posts have also been sanctioned for the same purpose.

During XIth Plan, it is proposed to build training hostel from guest house and also the toxicological/ pharmacological laboratory.

In view of above, the projected outlay for XIth Plan is Rs. 19.50 crores. The year-wise outlay is as follows:

Year	Outlay in Rs. crores
2007-08	6.49
2008-09	3.65
2009-2010	3.75
2010-2011	2.80

2011-2012	2.81
Total	**19.50**

28. Homoeopathic Pharmacopoeia Laboratory, Ghaziabad (HPL)

HPL is a national level laboratory set up for laying down standards for identification of Homoeopathic drugs and for testing of Homoeopathic medicines for enforcement of quality control to implement Drugs & Cosmetics Act and Rules at the Central level. It is recognized Drug Testing Laboratory for Homoeopathic drugs for whole of India. It is also recognized as a scientific and technological institute/organization by the Department of Science & Technology. The laboratory is also engaged in work pertaining to survey and screening of formulations and drugs, introduction and cultivation of medicinal plants. The laboratory is also recognised as Central Drug Laboratory for testing of Homoeopathic Drugs. During Xth Plan, the outlay was Rs. 0.97 crores. A new building has been constructed and set of equipment has been purchased from the Scheme of Strengthening of HPL and four new posts have also been sanctioned.

The proposed outlay for XIth Plan is Rs. 3.00 crores. The year-wise outlay is as following:

Year	Outlay in Rs. crores
2007-08	0.50
2008-09	0.55
2009-2010	0.60
2010-2011	0.65
2011-2012	0.70
Total	**3.00**

29. Strengthening of PLIM/HPL

This scheme is discontinued as a separate scheme and it stands merged with the above two schemes, viz., PLIM/HPL.

30. Public Sector Undertaking (IMPCL, Mohan, U.P.)

To manufacture quality medicines of Ayurveda, Unani and Siddha.

This is the only PSU of Department of AYUSH in a remote backward area. It needs to focus on brand building/marketing and creating a niche for itself. The unit is not making cash losses for last three years. There is need to develop IMPCL for laying down bench marks for Ayurveda, Unani and Siddha drugs. With this objective in view, modernisation plan of this unit is under implementation. It needs to be made clear to the management and labour that if the unit relapses into cash losses then it may be privatized or closed down. An assistance of Rs. 5.00 crore was provided to IMPCL in the Xth Plan for its modernisation activities. Another Rs. 5.00 crore is proposed in the XIth for Surveys/Exhibitions.

31. Information, Education & Communication

31.1 Awareness building on merits of AYUSH through surveys/exhibitions/roadshows, print and electronic media in India and abroad.

To create awareness about the efficacy of the AYUSH systems, their cost-effectiveness and the availability of herbs used for prevention and treatment of common ailments at their door-steps through various channels including the production of audio-visual educational material to achieve the objectives of health for all.

Under the Scheme, the Department is organizing AROGYA fair in Delhi since 2001 to generate awareness among the general public and to give a boost to the AYUSH drug manufacturing industry as well as to create awareness among the industry about Good Manufacturing Practices (GMP). Various provisions of the Enforcement Mechanism for ASU& H drugs. In view of the popularity of the fair and demand from various quarters, it was decided to organize regional AROGYAS also. The first regional AROGYA was organized at Chennai in January, 2005 and later during 2005-06. Regional AROGYAS have been organized at Hyderabad and Chennai. For this purpose, both audio-visual and print media is also being utilized. The Department proposes to continue to organize AROGYA fairs in metro cities during XIth Plan.

Under the Scheme, some video spots and films and documentary films on all the systems, viz., Ayurveda, Yoga & Naturopathy, Unani, Siddha and Homoeopathy as well as films on home remedies in Ayurveda and Unani have been prepared. The spots have been released through Radio and T.V. and the films have been utilized in AROGYA fairs as well as at other National/International fairs/exhibitions. The Department proposes to continue to prepare audio-visual and print material during XIth Plan.

The services of NGOs have been utilized for generating awareness about the strengths of AYUSH systems among general public and for creating awareness among the practitioners of AYUSH systems to practice their own systems as well as creating awareness among farmers for cultivation of medicinal plants at District/Block level.

Getting utilisation certificates from NGOs is the major constraint in the implementation of NGO Scheme.

The three components of the scheme are to be merged and to have following two modified components in the XIth Plan:

i) Awareness building through AROGYAS and print and electronic media through DAVP/media agencies/ITPO/FICCI/PHARMAXECIL and other reputed organizations.

ii) Awareness generation in State capitals and other places other than metro cities by organizing mini AROGYAS through reputed, identified media agencies/other organizations.

A provision of Rs. 19.00 crore was kept for IEC in the Xth Plan which is proposed to be increased to Rs. 25.00 crores in the XIth Plan.

OTHER PROGRAMMES AND SCHEMES

32.1 International Exchange Programmes on AYUSH and Scholarship scheme for foreign students in AYUSH

For supporting visits of officials/experts to foreign countries to participate in meeting/seminars/workshop/exhibition for propagation of AYUSH systems abroad and providing scholarship to students from foreign countries to study in AYUSH institutions in India. An outlay of Rs. 8.00 crores was made in Xth Plan.

To be continued in modified form. The modified scheme would help in promoting and propagating AYUSH abroad. A provision of Rs. 10.00 crores is projected for XIth Plan.

32.2 Assistance for organizing national/international Seminar/Conference/Workshop on AYUSH.

To create and increase awareness among the community about the preventive, promotive and curative aspects of ISM & H systems, its cost effectiveness and provide opportunity for intellectual interactions and deliberation through Seminar/Conference/Workshop.

To be continued with modifications as it serves very important purpose of creating awareness about ISM&H and providing opportunity for high level intellectual interaction through seminar/conferences/workshop for scientific development of these systems.

The projected provision for XIth Plan is Rs. 5.00 crores.

32.3 Organization of Trade Fairs/Exhibition/Roadshows/Conference abroad

This is a new scheme with aim towards popularization of AYUSH medicines in U.K., U.S.A., Europe, Middle East/Africa/South East Asia by holding trade fairs/roadshows by the Department of AYUSH/Research organizations/PHARMAXCIL/CII/FICCI/ITPO and other organizations. This would help significantly in promoting and propagating AYUSH systems and medicine abroad.

The provision of Rs. 5.00 crore is projected for XIth Plan.

32.4 Programme for training/fellowship/exposure visit/up-gradation of skills etc. for AYUSH personnel

To promote AYUSH systems through educational institutions as there is demand from many foreign countries to depute teachers for teaching AYUSH systems in their institutions. Therefore, to be continued with modifications. In Xth Plan, the provision was of Rs. 3.00 crores. The projected provision for XIth Plan is Rs. 5.00 crores.

32.5 Incentive to AYUSH industry for participation in fairs/conducting market study for creating a developing market opportunity in India and abroad.

To encourage AYUSH industry to develop markets in India/abroad, there is need to give incentive AYUSH industries for participating in trade fair/exposition for popularizing Indian Medicine in India and abroad and conducting market study for developing market opportunity.

The scheme to be continued in modified form. A provision of Rs. 5.00 crore was kept in the Xth Plan. The provision in XIth Plan is proposed to be at Rs. 5.00 crore.

33. Acquisition and Publication of Text Books & Manuscripts

To prepare and publish good quality text book written by highly experienced teachers of ISM & H colleges. To acquire, preserve and publish manuscripts and out of print books, which will provide easy access on the manuscripts of ISM.

The response for submitting the proposals under the scheme is very poor. As the sufficient literary staff is available in the respective councils-CCRUM/CCRAS and the proposals relating to manuscripts has been evaluated by the Steering Committee of the respective councils before placing it to the Screening Committee. The scheme may be transferred from the Department of AYUSH to Research Councils. They will implement the schemes from their Plan grant-in-aid.

May be transferred from the Department of AYUSH to AYUSH Research Councils. A provision of Rs. 7.00 crore was made in the Xth Plan. The projected outlay for XIth Plan is Rs. 7.00 crores.

34. North Eastern Institute of AYUSH

It is proposed to establish a North-Eastern Institute of Ayurveda and Homoeopathy at Shillong, Meghalaya. The proposal envisages the establishment of the institute in two phases spread over four years with the setting up of an Ayurvda college with an admission capacity of 60 students and a Homoeopathy college with an admission capacity of 50 students along with a 200 bed hospital, laboratories etc. The teaching infrastructure in Ayurveda and Homoeopathy is almost negligible in north-eastern states. There are 1 ayurvedic college and 3 homoeopathy colleges in Assam and 1 homoeopathy college in Arunachal Pradesh. In order to propagate the AYUSH educations and systems one national level institute need to be opened. It is with this end in view a proposal initially formulated for Arunachal Pradesh was considered by the EFC in its meeting held on 29th June, 2005 wherein after detailed discussions, the EFC recommended it subject to certain observations. In the meanwhile a draft CCEA note seeking approval of the cabinet was prepared and circulated to Ministry of Finance, etc. seeking their comments. The Ministry of Finance expressed doubts about the need and viability of the present. After considering the observations, it was decided to establish the institute at Shillong, Meghalaya in the campus of North Eastern Indira Gandhi Regional Institute of Health & Medical sciences, Shillong, where adequate land has been made available for the project.

The proposal was considered in the meeting of Cabinet Committee of Economic Affairs in its meeting held on 2nd June, 2006. However, the outcome of the proposal is not yet known.

Expenditure in X Plan

X Plan outlay	Expenditure	XI Plan outlay proposed
Rs.0.05crore	Rs. Nil	75.00 crore

It is submitted that there is adequate provisions of fund under Lumpsum Provision for North-Eastern States & Sikkim, if approved, requisite funds available under this head would have been re-appropriated to meet the expenditure.

Break-up of XI Plan Outlay(tentative)

Rs. in crores)

2007-08	2008-09	2009-2010	2010-2011	2011-2012	TOTAL
20.00	20.00	10.00	12.00	13.00	75.00

The scheme may be continued into 11th Plan so as to enable the Department to implement the proposal.

35. Re-orientation Training Programme of AYUSH Personnel/Continuing Medical Education (ROTP/CME)

These AYUSH practitioners usually remain unaware of the scientific developments and recent trends and advances in clinical practice. As a result the clinical competence of the practitioners declines over the years which may adversely affect their professional skill and deprive the masses from the benefit from recent health sector developments. There is also a need to keep them trained in the National Health Programme so that they can contribute in achieving the objectives of programme.

The ROTP/CME being implemented in X Plan is as a component under Centrally Sponsored Scheme on Development of Institutions. The total expenditure under this component in X Plan is Rs 2.70 crores

XI PLAN PROPOSAL

It appears that it would be appropriate if this scheme is taken up in the Central Sector since the purpose would be effectively served as the money will reach the user directly and it will reduce time in implementation/achievement of the scheme. It is proposed to to make a provision of Rs 10.00 crores in XI Plan. The year wise break up is as follows:

(Rs Crores)

2007-08	2008-09	2009-10	2010-11	2011-12	TOTAL
2.00	2.00	2.00	2.00	2.00	2.00

Department of AYUSH

Scheme-wise Projected Outlay for XIth Five Year Plan

Sl No.	Scheme	Tenth Plan Outlays	Tenth Plan Expenditure BE/R.E for 2006-07	Projected Outlays
	Centrally Sponsored Schemes			
1	Development and upgradation of AYUSH Institutes/Colleges	120..00	144.06	415.00
2	Hospitals & Dispensaries	59.00	284.41	625.00
3	Drugs Quality Control	45.40	55.28	150.00
	Central Sector Schemes			
	Strengthening of Deptt. of AYUSH			
1	Secretariat Social Services	17.50	21.88	30.00
2	Strengthening of Pharmacopoeial Committee on ASU	5.00	5.37	10.00
	Educational Institutes			
3	IPGTR, Jamnagar	5.50	3.85	10.00
4	NIA, Jaipur	25.00	23.96	37.00
5	RAV, New Delhi	3.00	3.05	5.00
6	NIS, Chennai	25.00	27.75	20.00
7	NIH, Kolkata	25.00	36.50	40.00
8	NIUM, Bangalore	15.00	21.00	25.00
9	MDNIY, New Delhi	11.00	9.56	20.00
10	Vishwayatan Yogashram, New Delhi	1.00	1.00	1.00
11	NIN, Pune	6.00	7.68	8.50
	Statutory Institutions			
12	CCIM, New Delhi	0.60	0.51	0.70
13	CCH, New Delhi	0.05	0.20	0.25
14	Central Pharmacy Council for Indian Medicine and Homoeopathy	2.00	0.45	2.00
	Research Councils			
15	CCRAS	45.00	54.37	100.00
16	CCRUM	42.00	59.45	90.00
17	CCRYN	10.00	8.63	25.00
18	CCRH	22.00	37.39	77.50
19	Central Combined Building Complex	6.00	7.92	15.00
20	Extra Mural Research	10.00	30.86	35.00
21	TKDL	1.50	7.67	1.50
22	Survey on Usage & Acceptability of AYUSH	1.00	1.18	2.00
23	National Ayurvedic Hospital in Delhi	15.00	29.11	75.00
24	Expansion of CGHS Dispensaries	7.00	0.89	7.00
25	Ayurveda Hospital, Lodhi Road, New Delhi	6.50	1.61	6.50
26	Setting up of National Board for Medicinal Plants	93.50	134.64	451.00

	Strengthening of Pharmacopoeial Laboratories			
27	PLIM, Ghaziabad	1.78	0.77	19.50
28	HPL, Ghaziabad	0.97	1.00	3.00
29	Strengthening of PLIM/HPL	20.00	3.81	0.00
30	IMPCL, Mohan	5.00	5.00	5.00
31	Information, Education and Communication 31.1 Awareness building on merits of AYUSH through surveys/exhibitions/road shows, print and electronic media in India and abroad.	19.00	19.26	25.00
	Other Programmes and Schemes			
32.1	International Exchange Programmes on AYUSH and Scholarship scheme for foreign students in AYUSH	8.00	4.86	10.00
32.2	Assistance for organizing national/international Seminar/Conference/Workshop on AYUSH	-	-	5.00
32.3	Organization of Trade/Fairs/Exhibition/Roadshows/Conference abroad.	-	-	5.00
32..4	Programme for training/fellowship/exposure visit/upgradation of skills etc.	3.00	0.11	5.00
32.5	Incentive to AYUSH industry for participation in fairs/conducting market study for creating a developing market opportunity in India and abroad.	5.00	0.56	5.00
33	Acquisition and Publication of Text Books and Manuscripts	7.00	1.65	7.00
34	North Eastern Institute of AYUSH	0.05	0.01	75.00
35	ROTP/CME	-	-	10.00
	TOTAL	**695.35***	**1057.26**	**2473.45***

***Lumpsum provision for North Eastern States and Sikkim is not included.**

Minutes of the First Meeting of Working Group for Eleventh Five Year Plan (2007 - 2012) on "Access to Public Health including AYUSH" held on 24th July, 2006

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The First Meeting of Working Group for Eleventh Five Year Plan (2007-2012) on "Access to Public Health including AYUSH" was held under the Chairmanship of Shri Vijay Singh,Secretary(AYUSH) on 24th July,2006 at 11.00 AM in Committee Room, IRCS Bldg, New Delhi. The list of participants is **annexed**.

At the outset, Secretary (AYUSH) welcomed the members of the working group and other invitees. In his introductory remarks, he briefed the participants about the terms of reference of the working group and pointed out that this Department had started with a modest budget in 1995 which has grown manifold in the last decade. At this stage, there is a need to review and analyze AYUSH sector priorities and different schemes that could be carried forward in the XIth plan.

Shri Bala Prasad, Director (AYUSH) made a presentation covering the recommendations of the various task force constituted on **AYUSH Education; Standardization and Quality Control of AYUSH Drugs; Research and Development; Mainstreaming of AYUSH; and Medicinal Plants.** Dr. G.S. Lavekar, Director, Central Council for Research in Ayurveda and Siddha (CCRAS) and Shri B.S. Sajwan, Chief Executive Officer, National Medicinal Plants Board (NMPB) elaborated the recommendations of task force on Research and Development and Medicinal Plants respectively. Shri Verghese Samuel, J.S. (VS) clarified that task force on education has felt that AYUSH professionals with very high academic credentials should only be nominated or elected in CCIM and CCH.

Shri Shiv Basant, J.S. (SB) explained the process of physical integration of AYUSH at PHC/CHC level under NRHM and expressed the hope that the States would provide for provision of AYUSH facilities in 100% PHCs/CHCs under NRHM in the 11th Five Year Plan for integration in health delivery system. For the purpose of smooth integration of AYUSH in health care delivery there should be a common Directorate at state level with due representation of AYUSH. Dr. S .K. Sharma Adviser (Ayurveda) and Dr. H.M. Chandola, Reader, Institute of Post Graduate Teaching & Research in Ayurveda (IPGT&RA), Gujarat Ayurveda University, Jamnagar, felt that separate Directorates for AYUSH at State level provide a better impetus to the growth of AYUSH in the States. Secretary (AYUSH)

supported the creation of separate AYUSH Directorate at the State level but also highlighted the need for proper coordination between AYUSH and Health Directorates for convergence and synergy in health care services.

Shri B.S. Sajwan, CEO, NMPB explained the achievements in the 10th Five Year Plan of the Central Scheme for the development, conservation and cultivation of medicinal plants. Further, explaining about Vanaspati Van, Community Herbal Garden, to use of modern agro-techniques to increase quality production of medicinal plants, he informed that modalities for taking over the Vanaspati Van scheme from the Department of Family Welfare are being worked out by the National Medicinal Plant Board. Preparation of monographs, R & D collaboration with CSIR, ICAR and DBT through their research institutes are some important areas which need to be given impetus in 11th Plan. Recalling the discussion in Department related Parliamentary Committee meeting in which relevance of NMPB was questioned, probably because of the small scale of its operation, Secretary (AYUSH) was of the view that there is a need for a quantum jump in the plan funds for medicinal plants sector and Chief Executive Officer, National Medicinal Plants Board may work out a comprehensive proposal for the 11th Plan.

Dr. B.L. Gaur, Vice-Chancellor, Rajasthan Ayurved University, Jodhpur emphasized that universities should be empowered to maintain the standards of medical education in AYUSH colleges/institutes and CCIM should provide only core curriculum. He suggested that recruitment of teachers should be done by a Centralized Board to ensure proper standard of teaching. He also stressed the need of publishing ancient AYUSH literature and their commentaries of in different languages otherwise people would not be able to translate them properly later on. Proper access to reserved forest and Good Collection Practices should be formulated for harvesting medicinal plants to ensure sustainable supply of medicinal plants products to the industry and practitioners. Teaching Institutions should have separate research wing as the teachers normally do not have knowledge of research methodology.

Dr. Darshan Shankar, Director, FRLHT, Bangalore supported autonomy to Ayurveda Universities and Centres of Excellence in different regions in deciding the curricula. Uniform curriculum across the country can only be at the expense of regional excellence. He also supported flexibility in curricula of PG education. He pointed that the Professionals of AYUSH are not aware of public health issues. Therefore, there is need to prepare them for substantial contribution in public health care system. For reorienting them there is need for

creation of public health institutions. He also pointed out that research in AYUSH has been sub-critical in size; and therefore, there is less impact. There is need for all India coordinated research projects. According to him, AYUSH research should not be confined to drugs, which has been the focus of research in allopathy. As AYUSH system is based on holistic approach, their research should also develop new framework of validation of complete set of therapeutic regime including diet and drugless therapies. National Medicinal Plants Board should also address the need of medicinal fauna and role of metals and minerals used in AYUSH. He also suggested public and private partnership to support buy-back arrangements. He specifically proposed higher plan allocation in the XIth Plan and provision of Plan funding to Universities and other Centres of Excellence working in medicinal plants/AYUSH systems.

Dr. Katiyar, Director, Herbal Division, RANBAXY emphasized the need for upgrading quality of AYUSH education to make Ayurveda an attractive carrier option. He emphasized a certification mechanism for quality control AYUSH medicines. He also suggested establishment of a National Repository of crude drugs and marker compounds.

Dr. H.M. Chandola, Reader, IPGTRA emphasized on minimum prescribed syllabus by CCIM to which universities can add additional modules. He also proposed restructuring of syllabus. He cited an example on research paper by Japanese on Prakarti, according to which diabetes can be identified through colour of skin and proposed research on diagnosis based on Prakriti. He also suggested supporting cooperatives in medicinal plants sector as it has been successfully demonstrated in milk sector. He supported encouragement to "Ayurvedic Medical Tourism"

Dr. Mattoo, President, Natural Resources India Foundation emphasized that different Govt. Agencies are working on medicinal plants with little or no coordination. There must be one nodal agency to coordinate with all stakeholders for better development of medicinal plants sector. He suggested separate Commissionerate at Centre and State level. He pointed out need for undertaking survey of Medicinal Plants.

Dr. Vasantha Muthuswamy, Senior DDG, ICMR emphasized the need to focus on what can be achieved in coming five years. She pointed out the need for sensitization of students and practitioners of different medical systems regarding the strengths of other systems to cultivate a scientific temper for cross system referrals for providing a patient the

best treatment. However, she regretted that most AYUSH physicians are only indulging in allopathic practice. She also explained the need for coordinated research and clinical trials and informed that ICMR has established an institute at Belgaum devoted to traditional medicines. CCRAS/CCRUM should build linkages with that institute.

Prof. Shakheel Jamil, Dean, Faculty of Unani medicine, Jamia Hamdard pointed out that most of the Unani Institutions have come up in the private sector and there is need for one time funding for upgradation of their infrastructure. He also emphasized the need for fundamental research, particularly, on Regimental Therapy.

Vaidya Devendra Triguna, President, Ayurvedic Congress, New Delhi pointed out that in Government sector AYUSH colleges are not being opened. After a lot of efforts, one college is going to be opened in Delhi by Delhi Government. In private sector colleges are coming up. But they do not meet the minimum standards as their threshold is very high. He emphasized that minimum standards laid down by the Government should be realistic. He underlined the need to have proper vision and focus in AYUSH research. He also suggested the need to promote Ayurvedic veterinary care products.

Dr. V.K. Khanna, Former Principal, Nehru Homoeopathy College, Delhi pointed out that most Homoeopathic colleges do not have a proper IPD, OPD and students do not get adequate clinical experience. There is very little clinical training. There is a need for enforcing some basic minimum standards for AYUSH educational institutions.

Dr. P.R. Ramesh, Chief Physician, Kottakkal Arya Vaidya Sala laid emphasis on standardization of Ayurvedic raw materials, optimizing of formulations and dosage forms, modernization and updating of formularies, starting Ayurvedic scholarship schemes and setting up a multi-disciplinary research centre capable of undertaking research work at molecular level.

Dr. R. Vijay Kumar, Commissioner, ISM&H, Tamil Nadu emphasized the need for clinical research, statistics and research methodology component in AYUSH education. He suggested introduction of training for AYUSH physicians and training of teachers. The expertise of local healers like bone setters needs to properly evaluated for inclusion in AYUSH/modern medicine curricula as well coopting local healers in the health care delivery. Moreover, mainstreaming of AYUSH should be extended to urban areas. He suggested broadening of scope of Reorientation Training and Continuous Medical Education.

Dr. Mohd. Qasim a noted Homoeopathic practitioner and former Professor, B.R. Sur Homoeopathy College brought out the need to have teacher training programmes and upgradation of professional knowledge of teachers to contemporary relevance. He emphasized comprehensive clinical training for students. He specifically mentioned the need for research-oriented training.

Dr. S.K. Sharma, Advisor (Ayurveda), Department of AYUSH mentioned that some States have no AYUSH college, such States should be supported for opening of AYUSH College in Govt. Sector with one time lumpsum funding from the Central Government. Secretary (AYUSH) expressed the view that the Central Government can only respond to locally felt needs and concerned States should come up with specific proposals indicating their own commitments for recurring and non-recurring expenditure and Central Government can at best do gap filling for capital expenditure. Adviser (Ayurveda) also supported creation of a AYUSH Pharma Development Fund. J.S. (SB) mentioned that the Pharma Development Fund administered by Department of Science and Technology is also available to AYUSH Pharma Units. The need for increasing the corpus would arise only when more and more viable proposals are submitted to Department of Science & Technology by AYUSH Pharma Units than they can fund from the existing corpus. He suggested a meeting with Department of Science & Technology and AYUSH Pharma representatives to sort out this issue.

Dr. Jiyalal of Rashtriya Guni Mission emphasized the need for validation of treatment given by Gunis and their cooperation in the national health delivery network.

Shri G.P. Singh Jhala, Rashtriya Guni Mission suggested the need for proper documentation of their practices. He also suggested establishment of herbal gardens in public places and schools and cautioned against haphazard cultivation of medicinal plants.

Dr. A. A. Ansari, Adviser (Unani), Department of AYUSH emphasized that the conditions of Government Colleges should be improved. Assistance to five Centres of Excellence in Unani Medicine, which were identified during 10th Five Year Plan should be assisted in the 11th Five Year Plan. According to him, Government grants should be confined to State Government Institutions.

Shri B.P. Sharma, Joint Secretary, Ministry of Health and Family Welfare generally supported the recommendations of the Task Force on mainstreaming of AYUSH. He, however, mentioned that National Rural Health Mission (NRHM) funding is limited and contractual hiring of AYUSH doctors would be possible only for CHCs/PHCs and not for sub-centers. According to him, this proposal would need approximately Rs. 1000 crore, which would not be feasible from NRHM budget at this stage. J.S. (SB) clarified that States were asked to examine this proposal in the joint letter issued under the signature of Secretary (Health) and Secretary (AYUSH).

JS (SB) requested all the members to send their suggestion by e-mail quickly so that the report of the Working Group could be sent to Planning Commission.

The meeting ended with the Vote of thanks to the Chair.

ANNEXURE
LIST OF PARTICIPANTS
IN THE Ist MEETING OF WORKING GROUP HELD ON 24.7.2006
AT 11.00 A.M. IN THE COMMITTEE ROOM IN IRCS BUILDING,
NEW DELHI

Sl. No.	Name, Designation & Address
1.	Shri Vijay Singh, Secretary, Department of (AYUSH)
2.	Shri Shiv Basant, Joint Secretary, Deptt. of AYUSH
3.	Shri Verghese Samuel, Joint Secretary, Deptt. of AYUSH
4.	Shri B.P. Sharma, Joint Secretary, Deptt. of Health
5.	Shri B.S. Sajwan, CEO(NMPB)
6.	Dr. S.K. Sharma, Adviser (Ay)
7.	Dr. S.P. Singh, Adviser (Homoeopathy)
8.	Dr. Anis A. Ansari, Adviser (Unani)
9.	Dr. V.V. Prasad, Director, RAV, New Delhi.
10.	**Dr. G.S. Lavekar, Director, CCRAS, New Delhi.**
11.	**Dr. D.R. Lohar, Director, HPL/PLIM, Ghaziabad**
12.	**Shri Bala Prasad, Director, Deptt. of AYUSH**
13.	**Dr. N.P. Singh, Director, Deptt. of AYUSH**
14.	Dr. G.P. Garg, Chief Chemist, Medicinal Plants Board.
15.	Shri A.K. Harjani, Deputy Director(PW), Deptt. of AYUSH.
16.	Shri T.S. Bhatia, Deputy Secretary, Deptt. of AYUSH.
17.	**Dr. D.C. Katoch, Dy. Adv.(Ay.), Deptt. of AYUSH**
18.	Dr. M.A. Kumar, Dy. Adv.(Siddha), Deptt. of AYUSH.
19.	Dr. S.N. Sahu, Dy. Adv.(Homoeo), Deptt. of AYUSH.
20.	Dr. Abhimanyu Kumar, Associate Professor, National Institute of Ayurveda, Jaipur.
21.	**Dr. M. Qasim, (Homoeo), B-36, Nizammudin West, New Delhi-13**
22.	Dr. S.K. Gupta, Research Officer, Planning Commission, New Delhi.
23.	Shri Rajeev Lochan, Director, Planning Commission, New Delhi.
24.	Shri K. Kalaivovi, Director, Incharge, National Institute of Health & FW., New Delhi.
25.	Dr. Vasantha Muthuswamy, Sr. DDG, ICMR, New Delhi.
26.	Dr. R. Vijay Kumar, Special Commissioner, ISM&H, Govt. of Tamil Nadu, Chennai.
27.	Dr. N.S. Dharmshaktu, Director General, Directorate General of Health Services, New Delhi.

28.	**Dr. Darshan Shankar, Director, FRLHT, Bangalore.**
29.	**Dr. C.K. Katiyar, Director, Herbal Division, RANBAXY**
30.	**Dr. K.S. Rawat, Deputy Director, Ayurvedic & Unani Services, Uttaranchal.**
31.	**Dr. V.K. Khanna, Principal, Nehru Homoeopathy College, Delhi.**
32.	**Dr. Anirban Pal, Scientist, CIMAP(CSIR), Lucknow.**
33.	**Prof. Shakir Jaimir,**
34.	**Dr. G.P. Singh, Jwala Jagaran Jan Vikas Samiti**
35.	**Vaidhya Jiyalal, Rashtriya Guru Mission.**
36.	Vaid Devendra Triguna, President Ayurvedic Congress, New Delhi.
37.	Dr. R.P. Mattoo, President, Natural Resources India Foundation.
38.	Dr. Ramesh P.R., CMOPSUDENT, Arya Vaidya Sala Ay. Hospital Karkerdooma, Delhi-110099.
39.	Dr. H.M. Chandela, Reader, KC, Institute of Post Graduate Training and Research in Ayurveda, Jamnagar.
40.	**Dr. B.L. Gaur, Vice Chancellor, Rajasthan Ayurveda University, Jodhpur.**

Government of India
Department of AYUSH

Report of the Task Force on AYUSH Education

1. Present status of AYUSH Education

1.1 The Regulatory System

Medical education in the Ayurveda, Siddha and Unani Systems is governed by the Indian Medicine Central Council Act, 1970 (IMCC Act) while medical education in the Homoeopathy System is governed by the Homoeopathy Central Council Act, 1973 (HCC Act). Both these Acts, which are broadly similar in nature, have provisions for the setting up of autonomous regulatory Central Councils which have wide ranging powers to prescribe the courses of study and their duration and the conduct of examinations in medical colleges. The major source of power for the Councils in the past lay in their discretion to grant permission for the setting up of new colleges and the starting of higher courses of study and the increase in admission capacity in existing colleges. Neither the IMCC Act or the HCC Act gave the Councils the power to grant such permissions, but this did not in any way inhibit the Councils from processing cases and granting permission for the opening of hundreds of medical colleges in the country in recent years. The mushroom growth of sub-standard new colleges became so alarming that the Government was forced to amend both the IMCC and HCC Acts to specifically empower the Central Government to grant permission for the opening of new medical colleges, etc. It is also noticeable that the role of the Universities in AYUSH education has progressively become more and more limited given the wide ranging and extraordinary powers wielded by the Central Councils with respect to all academic matters. There is no Central legislation for the regulation of Naturopathy and Yoga medical education.

1.2 The availability of AYUSH medical colleges

At present, there are 450 AYUSH medical colleges in the country, of which 99 colleges offer post-graduate courses. The admission capacity at Under Graduate level is 24880 while the admission capacity at Post Graduate level is 2325. The details are given below:-

	Ayurveda	Unani	Siddha	Naturo pathy	Homoeop athy	Total
Under Graduate Colleges	219	37	6	10	178	450
Admission Capacity (UG)	9865	1525	320	385	12785	24880
Post Graduate Colleges	57	8	3		31	99
Exclusive PG Colleges	2	1	1		2	6
Admission Capacity (PG)	905	73	110		1040	2128
Admission Capacity (Exclusive PG)	40	28	30		99	197

1.3 Course design

The Graduate and Post Graduate courses in Ayurveda, Siddha, Unani, and Homoeopathy and the Degree course in Naturopathy and Yoga are based on the corresponding Allopathic medical courses and are designed to lead to the award of Degrees from the Universities to which the colleges are affiliated. In all these systems there is a uniform five and a half year Degree course which includes one year of internship training. There are three year Post Graduate courses in 22 specialties of Ayurveda, 6 specialties each of Unani and Siddha and 7 specialties of Homoeopathy which are offered by various colleges. Admission to these Post Graduate courses is generally on the basis of a qualifying test. There is no Post Graduate course in Yoga and Naturopathy. The course design for both Under Graduate and Post Graduate courses is blindly imitative of the corresponding courses in Allopathic medicine.

1.4 Pharmacy and Para medical Education

There is no Central regulation of Pharmacy and Para-medical training in AYUSH systems. There are 14 Ayurveda pharmacy colleges, 2 Siddha pharmacy colleges, 4 Unani pharmacy colleges and 8 Homoeopathy pharmacy colleges which offer Pharmacist training courses at Certificate, Diploma and Degree levels. The duration of these courses ranges between 10 months to 4 years and the minimum qualification for admission is Matriculation or Senior Secondary. The course content and curriculum vary widely from state to state and the quality of the training is by and large unsatisfactory These colleges turn out only 915 Pharmacists every year which is only a fraction of the present demand. The position of para medical education is more or less the same.

1.5 Quality of AYUSH medical education

There was a consensus in the Task Force that in spite of the tremendous expansion in AYUSH education facilities in recent years or, perhaps, because of it, the general quality of AYUSH medical education remains very unsatisfactory. With some honourable exceptions, most AYUSH educational institutions do not provide quality medical education and the products of these institutions lack knowledge of the fundamentals of the concerned system of medicine. It was recognised that AYUSH education is just producing half baked practitioners who are barely able to practice in the best traditions of their systems. More importantly, this lack of quality in the AYUSH practitioners is responsible for the decline in the quality of AYUSH health care delivery and is preventing AYUSH systems from playing an active role in the national health programmes.

1.6 Attempts by Government to improve the quality of AYUSH education

In recognition of the fact that the quality of AYUSH education had to be upgraded, the Government of India is implementing a Centrally Sponsored Scheme “Development of Institutions” under which financial assistance is provided for the expansion and renovation of buildings; purchase of library books, equipment and scientific instruments; the strengthening of teaching hospitals; the development of computer laboratories and internet facilities; the development of postgraduate departments; for conducting re-orientation training programmes; and, for the development of model colleges. However, the scheme does not cover private colleges as far as capital works are concerned and the financial assistance provided has not always managed to improve the educational standards to the desired extent. The scheme cannot be said to have improved the quality of AYUSH educational institutions to any significant extent.

2. Problem Areas

2.1 Breakdown of the regulatory system

The regulatory system created by the IMCC and HCC Acts has clearly been perverted by the regulatory Councils themselves in their single minded concentration on enabling more and more sub standard new colleges to be set up. This has ensured that the elected seats on the Council have been effectively captured by non academic persons who run colleges or have a direct interest in the management of colleges. The Councils do not even go through the pretence of being concerned about academic standards or about the manner in which the medical colleges are being managed. The only issue which concerns the Councils nowadays is the opening of new colleges and, more importantly, the attendant activity of conducting inspections of the candidate colleges. The idealistic experiment of having autonomous regulatory Councils has most certainly broken down.

2.2. Poor infrastructure

The general quality of the AYUSH teaching infrastructure in the country is far from satisfactory. The major reason for this is the lack of investment. In the case of government institutions, there is benign neglect as the finances of the State Governments do not permit adequate funding. This is a particular problem since many old and reputed institutions are in

the government sector. Even when funds are available, proper utilisation does not take place because of problems with financial and procurement procedures. In the case of private institutions, the promoters are often unwilling to invest in any facility which will not give a commercial return on investment. The position of the newer colleges set up in recent years is particularly bad since the promoters rarely make any attempt at setting up sufficient academic infrastructure in terms of the minimum standards prescribed by the Councils.. The situation has deteriorated to such an extent that most promoters of AYUSH medical colleges now feel that there is no need to create infrastructure in terms of the minimum standards since it is perfectly possible to ensure that a student obtains a degree purely on the basis of classroom instruction.

2.3. Lack of qualified and committed teachers

The Task Force felt that the lack of teachers and, more importantly, the lack of good quality teachers was a major problem affecting not just the development of the AYUSH education but also the development of the entire AYUSH sector. In the government sector, the poor financial condition of the State governments and the accompanying stringent budgetary controls have ensured that posts are not created whenever required and that even existing posts are not filled up. In the private sector, the promoters of medical colleges have realised that they can manage with far fewer teachers than stipulated in the regulations by either hoodwinking or colluding with the Councils. The widespread practice in the private sector of teachers being engaged on contract basis has also had a very adverse effect on the quality of teaching. Another problem in the private sector is the low salaries paid to teachers as a result of which only below average persons are attracted to teaching jobs. The quality of the existing teachers remains less than satisfactory in spite of the Central scheme for the re-orientation training of in-service teachers having been in existence for quite some time. It is felt that the teachers are not conversant with the latest thinking in research and that their professional knowledge has not been updated. They are also perceived as being ignorant of the larger world of science. Demotivation of teachers is a serious problem.

2.4. Mushroom growth of sub standard colleges

The greatest threat to AYUSH education in recent years has been the extraordinary growth of sub-standard private medical colleges. During the period 1996-2006, as many as 198 new colleges were set up, the vast majority being in the private sector. To put it in perspective, it

must be remembered that this constitutes a full 44 percent of the total number of AYUSH medical colleges in the country. These colleges in general have little or no infrastructure in terms of the minimum standards prescribed; staffing levels are generally inadequate; and the quality of instruction is poor. Most of these newly opened colleges are churning out ill trained and barely educated AYUSH practitioners. The responsibility for this appalling situation rests entirely with the statutory Councils which actively colluded with the promoters to ensure that these colleges were set up in violation of the regulations issued by the Councils themselves with regard to minimum standards, staffing, infrastructure, etc.

2.5. Unsatisfactory curriculum and course content

There is a general consensus that curriculum and course content of the AYUSH Degree and Post Graduate courses require significant improvement. The existing curriculum is imitative of the Allopathic curriculum to the extent that the very character of the Ayurveda, Siddha, Unani and Homoeopathy systems gets compromised. The load on undergraduate students in terms of subjects and papers at Degree level appears to be excessive and unnecessary when compared to the load for MBBS students. The Allopathic medicine component at Degree level appears to be disproportionately large for no apparent reason. The examination system is compromised by the fact that not enough suitably qualified examiners are available. The problems in this area are due to the fact that it is the CCIM and the CCH which exclusively regulate the curriculum and course content and the role of the Universities is restricted to the conduct of examinations.

3. Recommendations

3.1. The regulatory system

3.1.1 The role of the Councils to be re-defined

There is an imperative need for root and branch reform of the regulatory Councils. The simplest option would be the IMCC and HCC Acts to be amended to ensure that only academics and persons of high repute can get elected to the Councils and, more importantly, to ensure that the Councils cannot be captured by commercial interests with deep pockets. Amendments are also required to restrict the membership of the Councils to a fixed tenure of five years. The regulatory Acts should also have provisions enabling the Government to give directions to the Councils on matters of public policy and to enforce

these decisions. In extreme cases, the Government should also have the power to dissolve the Councils. The Bills to amend the IMCC and HCC Acts which have been introduced in Parliament contain many of these provisions. The Department of AYUSH should attempt to get these Bills enacted as quickly as possible.

3.1.2 The role of the Universities

The Universities should be given a significant role in regulating AYUSH education. The Universities could prescribe course curricula and syllabi, training modules and organize the examination system. The Councils should prescribe the broad outline of the curriculum and the Universities should prescribe the subject content, the duration and phase wise break up of courses, pass standards, required faculty levels and required infrastructure, etc. It is obvious that the Universities should be given the responsibility of maintaining and enforcing educational standards as this is not something which cannot be done with any effectiveness in a centralized manner as has been successfully demonstrated by the Councils.

3.1.3 Setting up of Regional AYUSH Universities

In the long run, the Task Force is of the opinion that the cause of AYUSH education would be best served by setting up 4 regional AYUSH universities which would be Centrally funded including the existing Ayurveda Universities of Gujarat and Rajasthan to which all the AYUSH institutions could be affiliated. The various National Institutes could also be affiliated to these Universities or alternatively could be given Deemed University status. The proposed decentralization of regulation in academic matters would definitely result in higher standards of training and this would certainly have a beneficial effect on the development of AYUSH systems in the country.

3.1.4 Setting up of an Accreditation system

The setting up of the regional AYUSH Universities will take a certain amount of time given the need for Central legislation. Since educational standards are declining rapidly and given the drift in the policies of the CCIM and the CCH, it is necessary to adopt certain measures outside the existing regulatory system to check the decline in educational standards. The Task Force is of the opinion that a formal accreditation system for the ranking and gradation of colleges on the basis of the quality of their teaching and training facilities and infrastructure should be set up. The accreditation system will not only inform the public about

the standards of education in different colleges but also help the Government to identify institutions which can be given financial assistance for further development of academic standards. The accreditation mechanism should be operated by the Department of AYUSH through a Board comprising eminent academics and experts.

3.1.5 Regulation of Yoga and Naturopathy

The issue of whether a separate statutory regulatory authority should be set up for Yoga and Naturopathy on the lines of the existing Councils was discussed. It was noted that there were only 10 colleges offering BNYS courses at present. The number of practitioners is also quite low. This being the case, there does not seem to be any justification for setting up a separate statutory regulatory system for Yoga and Naturopathy. That said, there is still a case for regulating Yoga and Naturopathy education by means of alternative institutions. At the moment it is the Universities which are setting the curriculum and course content and conducting examinations. Since there are only a few such Universities and since the intellectual content of Naturopathy makes it inherently more liable to be misused, it is essential that some kind of standardization and rationalization of the curriculum and course content be imposed. The optimal solution appears to be an accreditation system for institutions and a registration system for practitioners to be to be implemented by the CCRYN or NIN for Naturopathy and by MDNIY for Yoga.

3.2 Improvements in professional training

3.2.1 Training at Degree and Post Graduate levels

There is an urgent necessity to improve clinical training. The emphasis should be on starting clinical training as early as possible in the Degree courses. The basic objective of AYUSH education should be to produce professionally competent doctors who are thorough with the fundamentals of their systems and who have undergone intensive practical clinical training. The training should enable AYUSH doctors to handle patients and to diagnose conditions purely in terms of the accepted principles of the system concerned without unnecessarily taking recourse to the diagnostic techniques used in Allopathic medicine. It is also important that the doctors do a compulsory rural posting of two years before they are considered for post graduation.

3.2.2 In service Training

The need for a complete overhaul of the in service training system cannot be overemphasized. Given the rapid changes in scientific and technical knowledge, it is imperative that an opportunity be given to all practitioners to update their professional knowledge. The existing system which has been funded through a component of the Centrally Sponsored Scheme for the Development of Institutions has not been particularly successful. A change of strategy may therefore be considered and dedicated training centres may be designated or set up where necessary. National Institutes, the Rashtriya Ayurveda Vidyapeeth and certain Universities or premier AYUSH institutions should be designated as Training Centres where Continuing Medical Education and the periodic re-orientation of practitioners and teachers would be provided throughout the year.

3.3 The financing of Medical Colleges

It is clear that the Centrally Sponsored Scheme for the Development of Institutions was conceptually flawed since It was too rigid and the quantum of financial assistance was not adequate. Given the crisis in AYUSH education, it is essential that the scheme be reformulated so that it can be more flexible such that it can take account of the requirements of individual institutions while at the same time ensuring that larger amounts of money are made available to the institutions. This would also mean that it would be necessary to focus on a smaller number of institutions rather than spread the money thin as at present. The Government should select around 20 or 30 good institutions and fund development schemes for improving infrastructure and facilities and the hiring of quality staff. The ultimate aim should be to produce world class institutions by the end of the 11th Plan period. Institution specific development plans should be implemented rather than the one-size-fits-all plans now being implemented. There should also be no distinction between government owned and privately owned institutions for the purpose of receiving funding under the scheme. The outlay on the scheme should be increased threefold

3.4 Preventing the opening of sub-standard medical colleges

3.4.1. Legal provisions to be strengthened and better enforcement

The strict enforcement of the provisions of the IMCC Act and the HCC Act regarding the grant of permission for starting new medical colleges, starting higher courses of study and

increasing admission capacity is probably the only way to prevent the mushrooming of sub-standard medical colleges. The regulations to govern the enforcement of section 13A of the IMCC Act are inadequate and require immediate replacement or extensive amendment. The regulations should be realistic and the intention should be to ensure that minimum standards of staffing, infrastructure and facilities are in place before a medical college is permitted to admit students. Regulations for the enforcement of section 13C of the IMCC Act are urgently required so that the formal permission required under the Act for the medical colleges which were in existence when the IMCC Amendment Act was amended in 2003 can be processed. The position regarding new Homoeopathy medical colleges is more problematic since the CCH has blatantly defied the Government by refusing to notify the regulations framed under section 12A of the HCC Act. It is urgently required that regulations be notified to govern the enforcement of the amended provisions of the HCC Act relating to the starting of new colleges, etc.

3.4.2 State Governments and Universities to be responsible when giving No Objection certificates and Affiliation to new medical colleges.

State Governments and Universities should act responsibly when granting No Objections and Affiliation to new colleges. The indiscriminate grant of No Objections by the State Governments and the routine grant of Affiliation by the Universities is one of the reasons for the mushroom growth of AYUSH medical colleges during the past ten years. New colleges should be allowed to come up only when there is a gap in the availability of AYUSH medical practitioners in that particular state which cannot be filled up in any other way. It must be remembered that the total annual output of AYUSH medical graduates and post graduates in the country is around 27000. The comparative figure for Allopathic medical graduates and postgraduates is around 29000. It can therefore be seen that there is no critical shortage of AYUSH doctors such that the standards of training require to be lowered or compromised to enable greater output. The blatant commercialization of AYUSH education must be checked before it affects the development of the systems themselves.

3.5 Monitoring the standard of instruction in Medical colleges

3.5.1 Regulatory Councils to monitor the standard of instruction

Monitoring the quality of instruction in medical colleges is probably one of the most important regulatory functions of the CCIM and CCH. Unfortunately, this is something which gets very

low priority with the Councils which concentrate shamelessly on the grant of permission for new colleges for very obvious reasons. The impact of this non-concern is evident in the declining standards of AYUSH education. Amendments must be made to the relevant regulations to ensure that the Councils are duty bound to monitor the standard of instruction in colleges. It must also be ensured that a qualitative assessment is done rather than a mere counting of the number of teaching staff available, the number of class rooms, etc. The Universities must also be involved in this exercise by the Councils.

3.5.2 Punitive action to be taken against colleges where the quality of instruction is unsatisfactory

One reason why colleges do not bother about maintaining academic standards is that there is no compulsion to do so. The IMCC Act contains a provision for de-recognition which is precisely meant for situations where a college is not maintaining the prescribed academic standards. For reasons which are not clear, this provision is rarely, if ever, invoked against erring medical colleges. It is essential that the inspections proposed at para 3.5.1 should identify the colleges which are not maintaining appropriate academic standards. These colleges should then be given an opportunity to take suitable corrective action and in the event no action is taken or if the action taken is insufficient de-recognition should be resorted to. If the provision for de-recognition is fairly and ruthlessly enforced, there is little doubt that there will be a perceptible improvement in academic standards.

3.6. Pay structure for Teachers

One of the reasons why AYUSH medical colleges do not attract quality teachers is the fact that most colleges do not offer satisfactory pay scales for teachers. It should be recognized that unless pay scales are improved it would not be realistic to expect good teachers to work in AYUSH colleges. UGC scales should be available to teachers in AYUSH colleges subject to the introduction of appropriate accreditation systems for ensuring that teachers acquire higher qualifications, etc.

3.7 Post graduate education

The strengthening of Post Graduate education is vital for the development of teaching and research. There is a shortage of good teachers and there has to be focus on research if the systems are to achieve a high degree of scientific credibility. It is therefore essential that

Post Graduate education be given the necessary attention it requires There is an immediate need to strengthen Post Graduate departments and this can be done as a part of the new scheme for the creation of institutions of excellence to be introduced in the 11th Plan. Post Graduate education requires rationalization because a large number of irrelevant courses have been introduced, particularly in Ayurveda, in an attempt to mimic the specialities in Allopathic medicine. In the interest of the development of AYUSH systems, it is essential that specialization should only be in classically recognized areas of the systems and not in artificially created areas merely on the analogy of specializations in Allopathic medicine. Opportunities should also be created for the admission of Ayurveda, Unani, Siddha and Homoeopathy graduates in system-neutral non-clinical Post Graduate medical courses like Anaesthesia, Radiology, Anatomy, Physiology, Optometry, Hospital management etc. offered by Allopathic medical colleges and other institutions instead of trying to create AYUSH versions of these specialities. It would also be necessary to start Post Graduate diploma courses in specialities for AYUSH medical graduates at University level.

3.8 Pharmacy education

There is an urgent necessity to regulate Pharmacy training in AYUSH systems so as to provide adequate numbers of Pharmacists for manufacturing units and hospitals. The ISM &H Pharmacy Bill which has been introduced in Parliament would be sufficient for this purpose. The Department of AYUSH should take urgent steps to get the Bill approved by Parliament.

3.9 Para Medical education

Para medical education requires to be systematized and standardized. Ideally, para medical courses should be started by existing AYUSH teaching institutions. Without adequate numbers of para medical personnel, it will not be possible to popularize or expand the reach of AYUSH systems. This particularly relevant given the participation of AYUSH systems in the NRHM and other national health programmes and the expansion of AYUSH dispensaries and hospitals envisaged under the Centrally Sponsored Schemes in the 11th Plan. The provision of Central assistance for encouraging AYUSH institutions to start para medical courses should also be considered by the Department of AYUSH.

REPORT OF 11th PLAN WORKING GROUP ON STANDARDIZATION & QUALITY CONTROL OF ASU & H MEDICINE

To publish Pharmacopoeial standards for Ayurveda, Siddha and Unani and Homoeopathy (ASU&H) medicines both for single and compound drugs is one of the priority work of the Department of AYUSH. The Ministry had taken up the task of developing pharmacopoeial standards through Pharmacopoeia Committees. Four different Pharmacopoeia Committees are working for preparing official formularies/pharmacopoeias, to evolve uniform standards in preparation of ASU drugs and to prescribe working standards of single drugs as well as compound formulations. Pharmacopoeial standards are important and are mandatory for the implementation of the drug testing provisions under the Drugs and Cosmetics Act, 1940 and Rules thereunder. These standards are also essential to check samples of drugs available in the market for their safety and efficacy.

The Department of AYUSH launched a Central Scheme to develop Standard Operating Procedure of manufacturing processes, to develop pharmacopoeial standards and shelf life studies of Ayurveda, Siddha & Unani Compound drugs under 10th Five Year Plan. and achieved significant results, but still lots of work have to be done in the field of standardization and quality control. For this strengthening/upgrading of various drugs testing laboratories (Government/ autonomous/states/ other accredited laboratories), ensuring of availability of genuine raw materials of commonly available drugs as well as rare and endangered drugs of plants/animals/minerals origin, substitutes of similar species have to taken up in the 11th Plan to handle the task of drugs quality control. New area relating to drugs e.g. strengthening of Drugs Control department of States and Central, Developing Herb garden/Museum/herbarium are essential requirement for quality medicines. For this Planning Commission has constituted a Working group headed by the Secretary, AYUSH, to access the Health System, Department of AYUSH, further constituted a task force on "Standardisation and Quality control of AYUSH Drugs". The following members participated in the meeting:-

1. Dr. S.K.Sharma, Adviser, Deptt. of AYUSH, New Delhi
2. Dr. G.S. Lavekar, Director, CCRAS, New Delhi
3. Dr. C.K.Katiyar, Ranbaxy, Gurgaon
4. Dr. P.K.Warrier, Arya Vaidya Shala, Kotakkal,
5. Dr. (Mrs.). S.K. Khanrasad, Scientist -F, Deptt. of Science & Technology
6. Dr. D.R.Lohar, Director, HPL/PLIM, Ghaziabad, Member Secretary,

Special invitees

7. Dr. Padma Venkat, Jt. Director, FRLHT, Bangalore
8. Dr. Y.K.S. Rathore, Jt. Director, CRCL, New Delhi.

The TASK FORCE held two meetings on 3rd July ,2006 and on 14th July,2006 at CCRAS, Janakpuri, New Delhi. discussed various issues and after detailed deliberations on Standardisation and Quality control on AYUSH drugs, made the following recommendations.

RECOMMENDATIONS OF THE WORKING GROUP ON QUALITY CONTROL & STANDARDISATION OF ASU & H DRUGS.:

1. LAYING DOWN OF PHARMACOPOEIAL STANDARDS:

To undertake testing of multiple ingredients compound formulations, it is necessary first to have the test for single drugs going in the formulation. Therefore, Ayurvedic, Siddha, Unani & homoeopathic Pharmacopoeia Committee have undertaken this work at priority and has made significant achievement in case of single drugs. Five Volumes of Ayurvedic Pharmacopoeia of India containing 418 monographs and one volume of Unani Pharmacopoeia of India containing 45 monographs has been published. There is an urgent need to complete the major single remaining ASU drugs. The number of such drugs is about 200 to be worked in 11th Plan. Nine volumes of Homoeopathy Pharmacopoeia containing 1000 Drugs have been published. Work on finished Products (Mother tincture) need to be taken up in 11th Plan.

The Standardized monographs on minerals and metals to be used as raw-materials are equally important before developing the SOP and Quality Standards of Bhasmas. Therefore, the work initiated in 10th Plan need to be continued in the 11th Plan. The animal bye-products, marine products are also used in ASU drugs for which the standards are to be developed.

Although, the Pharma industry is making use of extracts in various dosage forms yet there are no pharmacopoeial standards of extracts to be used as intermediate raw material. Therefore, it is necessary to develop the Quality Standards along with their Safety Profile for the extracts of the most common drugs used in ASU system. It is also necessary to develop pharmacopoeial & quality standards for Indian medicinal plants used for the purpose of food and cosmetics and official substitutes of non available drugs/ plants/animals. This work should be give priority in the 11th Plan. Thin Layer Chromatography (TLC/GLC) technique are quite relevant to identify the marker compound as well as major ingredients. Therefore, there is a need to prepare chromatograms/finger-printing Atlas of the single drugs used in ASU system.

All these Pharmacopoeial activities will be carried out with the help of PLIM/HPL, CCRAS, CCRUM, CCRH, University Laboratories, CSIR & other laboratories capable of undertaking this work.

Pharmacopoeial Standards of Multiple Ingredient Compound formulation is one of the priority area wherein the work has been initiated in the 10th Plan for 300 formulations. This needs to be taken more vigorously

in the 11th Plan and target should be to publish SOPs and Quality Standards, Shelf Life monographs for at least 100 compound formulation per year to complete the work on 500 ASU drugs in the 11th Plan.

There is an urgent need to revise and up-date the various volumes of Pharmacopoeias and Formularies. This needs constant documentation and networking of the laboratories. The existing arrangement of Ayurvedic Pharmacopoeia Cell in the Department of AYUSH/ and CCRAS is inadequate to provide technical and scientific assistance to the Pharmacopoeial work.

Keeping in mind the increasing demand of AYUSH & plant based drugs, there is a need to give top priority to the Pharmacopoeia work of Ayurveda, Unani, Siddha and Homoeopathy. This work can be systematically carried out with the help of an Autonomous body **'Ayurvedic Pharmacopoeia Commission'** fully supported and staffed by the Department of AYUSH. This could be housed in the new campus of PLIM, Ghaziabad.

For Pharmacopoeial, Quality Standard work as well as setting up of Ayurvedic Pharmacopoeia Commission, an allocation of **Rs. 20 crores** will be required for 11th Plan.

2. Capacity Building:

Strengthening of DTLs for ASU & H for the acceptability of the ASU & H drugs:

It is necessary that the Pharmacopoeial Standards published by Government of India are complied by the manufacturers as well as DTLs. There are about 10,000 manufacturing units preparing lakhs of classical and P&P formulations. As per new provisions of the Drugs & Cosmetics Act various labeling provisions for domestic and export purpose require huge infrastructure of laboratories. Department of AYUSH has supported 22 State Government DTLs in tune of Rs. 1 crore each, but their functioning capacity is very limited. There is acute shortage of trained experts as there is constraint of regular employment of scientists in the State DTLs etc. The new GMP provisions require regular testing during the process of manufacturing as well as for the products. Therefore, there is a need of developing and supporting large number of DTLs for ASU &H systems. The following categories of institutions/ laboratories will be supported for this purpose:-

i) PLIM & HPL/ CCRAS/CCRUM/CCRH
ii) State DTLs

iii) Eminent Laboratories/Institutions having good infrastructure to undertake testing of AYUSH drugs in the Universities as well as other such institutions.
iv) All the PG teaching Departments of Dravya Guna, Ras Shastra, Bhaishajya Kalpana, Gun Padam, Ilmul Advia and Materia Medica & Good Pharmacy Departments
v) In-house DTL of the industries
vi) Labs run by Associations of ASU&H drug industry
vii) Co-operative Labs run by a group of drug industry
viii) Development or identification of a lab dedicated to isolation of marker compounds.

All such institutions require generous funding to develop infrastructure as well as expert human resource. This work can be carried out with the help of an Autonomous body 'Ayurvedic Pharmacopoeia Commission' fully supported by the Department of AYUSH. This will require an amount of **Rs. 100 crores** during the 11th Plan.

3. Centre for Safety Evaluation/Toxicity Studies for Ayush Drugs:

Although, the most of the classical ASU medicines are used in the human being for centuries in India and they are considered safe. However, there is a felt need to establish the safety of various single drugs as well as formulations containing poisonous ingredients in various dosage forms. To implement the concept of Pharmaco-vigilance, it is essential to pick-up the samples of the products containing heavy metals as well as poisonous ingredients and confirm their safety. In the present scientific era, the Indian consumer also want to re-ensure the safety profile of ASU&H drugs. Therefore, there is a need to set-up and support national facilities for safety evaluation of ASU drugs. The institutions like PLIM/HPL/CCRAS can also have Pharmacology/Toxicological Department with Animal House facilities etc. **PLIM should have a centre for conducting pharmacology toxicology on AYUSH products. This centre should have expertise in both *in-vitro* and *in-vivo* pharmacological experiments suitable for AYUSH drugs. Special emphasis should be laid down on molecular pharmacology with a view to elucidate the mode of action of these products to the maximum possible extent.** A Centre for Pharmaco vigilance may also be created in 11th five year Plan.

An amount of **Rs. 20 crores** will be required to support/establish the facilities at couple of places in the country.

4. National Herbarium, Museum, Herbal Garden for ASU&H Drugs:

For R&D purpose, as well as for reference purpose, there is a need to establish/strengthen a couple of medicinal plant garden containing all the medicine plant Species used in ASU & H system. These gardens will act as

Demonstration Garden as well as source of authentic raw-drug samples. Some of the gardens established by State/Institutions like Himachal Pradesh Garden at Joginder Nagar, CCRAS Garden at Pune & Jhansi, 4 Gujarat Government Gardens at Ahmedabad and other places and other such gardens having predominant species of ASU plants needs financial support.

A proper documentation of the herbarium sheets and samples in the form of herbarium and museum at various places require financial assistance. Various survey material & Herbarium sheet samples collected by CCRAS/CCRUM/CCRH need proper preservation as well as documentation. The herbarium at PLIM/HPL and research Councils and at our National Institutions also needs an up gradation.

This will require **Rs. 20 crores** in the 11th Plan.

5. Training and provisions of Scholarships/Fellowship in ASU&H Pharmaceuticals, Quality Control & Standardization:

Degree, Post Graduate & Post Doctorate training is required in ASU&H drug sector. CME & various short-term/long term training courses for Quality Control, Standardization etc. are required to up-to-date the skills of the Scientists. Courses like B. Pharma (ASU& H), M. Pharma (ASU & H), P.G. Diploma in testing procedures, various MS/MSc/Ph.D programmes on ASU drugs require financial assistance. There is a lot of scope to float Junior/Senior Research Fellowships as well as P.G. & Ph. D. Fellowships for students undertaking research in the area of ASU & H drugs. Similarly training is required for working Scientists, Drugs insectors, Drugs Analysts, Pharmacists, Manufacturing Chemists, Pharmacy Professors, medical officers and Quality enforcement agencies in latest development in quality control. This will require strengthening of infrastructure as well as HRD related issues, fellowships etc and will require **Rs. 20 crores** in the 11th Plan.

6. Strengthening of PLIM/HPL, Ghaziabad

Buildings of HPL and PLIM Ghaziabad have been completed. This require proper latest equipment. In the new building there is a need to establish toxicology laboratory. Similarly, PLIM/HPL are conducting regular training programmes for all India level, and there is no provision for staying of these trainees. Therefore provision for toxicology Laboratory and a guest house may be kept in 11th five year Plan. The laboratory should also be provided adequate scientific staff. The pay scale & promotions of PLIM/HPL should be on the pattern of CSIR laboratories/institutions. This will require **Rs. 10.00 crores** in the 11th Plan.

7. Scheme to work on Metal Based Bhasmas & Ras Aushadhis:

There is lot of scope and urgent need to work on different aspects of preparation , standardization, safety, efficacy, doses forms and Pharmacology of metal based Bhasmas and Ras Aushadhis. One Hundred most common Ras aushadhis will be taken up for R&D. This will require participation of various institutions in the 11th Plan. An amount of **Rs. 20 crores** will be required for this activity in the 11th Plan.

8. Scheme relating to ASU Drug Industry:

ASU drug industry is a green industry, cause minimum pollution, make use of all indigenous material and giving job opportunities for needy people. There are about 10000 manufacturing pharmacies. Most of them are medium scale and small scale. Government is bringing new rules & regulation for the manufacturing process, Quality Control etc. which require lot of investment. The annual turnover of this sector is about Rs 5000 crores out of which only Rs. 2000 crores belong to medium and small scale industry. To support the R&D based production of classical and P&P drugs, there is a need to allocate ASU& H "Pharma Industries Support Corpus" fund of **Rs. 100 crores** to meet the bank interest (amount of interest difference between the bank rate and soft loan rate of interest) which will be recoverable in 10 year period. Similar Scheme already implemented by the Department of Science & Technology. The details of the various components under the Scheme could be worked out. Other R&D Schemes relating to AYUSH drug like clinical trials support, Revise Pharmacology of Chemical ASU medicine, industry will require **Rs. 100 crores.**

9. Availability of the Raw-material of Endangered Species of Plant and Animals:

ASU system fundamentally believe to work in harmony with the nature. There is a symbiosis of human race with the plant and animal kingdom. Ayush system fully believes to work for protection of endangered species. However, bye-products of the nature are used in ASU drugs for centuries and shown lot of beneficial effects. In the last couple of years, the various departments like Wild Life Protection etc has banned number of items which are bi-products of animal like deer antlers, Kauri Shells, Dead corals, musk deer etc. Deleting such ingredients from ASU medicines has deprived number of very good formulations for treating complicated problems. Therefore, rearing of musk and deers for various bi-products need to be taken-up in collaboration with the Department of Environment, Wild Life and Marine Department etc. The cultivation of such plant/animal species need to be undertaken in the 11th Plan. The countries like China, Mongolia are already rearing

musk deer and other deer species to meet the medicinal requirements. System of registration of vendors and certification of raw material and finished products should be developed and a 'Ayush product certification board/agency' may be set up to certify the quality of the Ayush products like Agmark for food.

An amount of **Rs. 20 crores** is needed for this activity in 11th Plan.

10. Scheme to Supply of authentic raw-material for ASU&H Drug Industry:

ASU drug industry is facing the problem on availability of authentic raw-material with proper knowledge on source and test reports of quality etc. It is suggested that the sale of raw-drugs should also be regulated in the Drug & Cosmetics Act and Quality Pharmacopoeial Standards should be applicable at the sale point of raw-drugs. This initiative require procurement, gradation, storage, quality certification and packaging of the raw materials. This will require the co-operation of Warehousing Corporation, National and State Medicinal Plants Boards and other private agencies dealing with the business of Medicinal Plants sector. Further, the support for Quality Testing facilities near such Mandies/Trade Centres need the support of the Department of AYUSH. This initiative will require input of **Rs. 20 crores.**

11. Strengthening of the Drug Control Division in Centre and States:

There is utter lack of infrastructure, human resource expertise and other requirements to regulate the provision of Drug & Cosmetics Act at Centre and State. The AYUSH component has negligible visibility in terms of Drug Controller, Drug Inspectors, Drug Analysts and other manpower required to regulate the provision of Drugs & Cosmetics Act. There is an urgent need to strengthen Centre and State Licensing & Regulatory Authorities. There is a need for comprehensive review of regulatory provisions of AYUSH products. To begin with, regulatory changes can be started by implementing a system of registration on AYUSH products on the basis of proper product dossier with State licensing authority on the basis of proper guidelines developed by the Central Government. There is an urgent need to support technical experts in Drug Control Section of AYUSH along with supporting staff. This will enable to enforce the provision of drug Act effectively. This will require **Rs. 20 crores** in the 11th Plan.

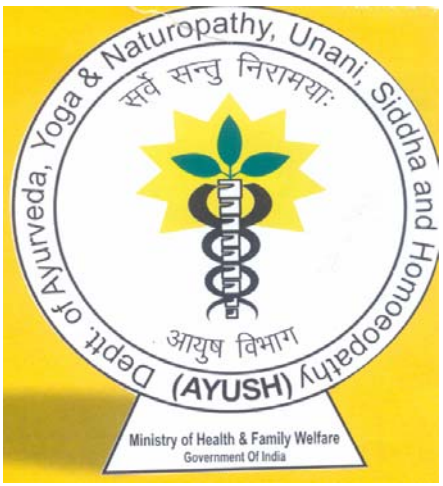
Summary of the Proposal:

S. No.	Activity	Financial Requirements Rs. In Crores	Implementing Agency
1.	Laying down of Pharmacopoeial Standards e.g. single	Rs. 20.00	PLIM/HPL, CCRAS, CCRH, CCRUM, University Labs, CSIR & Other capable

	&compound drugs, Bhasmas and Extracts .		Labs/institutions
2.	Strengthening of DTLs for ASU & H for the acceptability of the ASU&H drugs	Rs. 100.00	PLIM/HPL, CCRAS, CCRUM, CCRH, State DTLs, eminent Labs, PG teaching Deptt. of Dravya Guna, Ras-Shastra and Pharmacy Deptts., National Institutes of ASU & H.
3.	Centre for Safety Evaluation/Toxicity Studies for Ayush Drugs	Rs. 20.00	PLIM/HPL and at other couple of institutions engaged in the field in different parts of the country
4.	National Herbarium, Museum, Herbal Garden for ASU & H Drugs	Rs. 20.00	PLIM/HPL, State Garden at Joginder Nagar (H.P.), CCRAS Garden at Pune & Jhansi and 4 Gardens of Gujarat Government
5.	Training and provisions of Scholarship/ fellowship in ASU&H Pharmaceuticals, Quality Control & Standardization	Rs. 20.00	Degree , PG and Post Doctorate, training in the country, infrastructure and HRD related issues at Centres like NIPER, RRL, Jammu, NBRI, CIMAP, BHU, IPGTR etc. and other Universities
6.	Strengthening of PLIM/HPL Ghaziabad	Rs. 10.00	Equipments, toxicology laboratory and Guest House at PLIM/HPL along with scientific manpower
7.	Scheme to work on Metal based Bhasmas & Ras Aushadhis	Rs.20.00	Preparation, standardization, safety, efficacy, dosage forms and Pharmacology of metal based Bhasmas and Ras Aushadhis at SASTRA, Thanjavur, BHU, Sriram Institute, CCRAS and other Industries
8.	Scheme relating to ASU Drug Industry	Rs. 100.00 (for soft loans) Rs. 100.00 for R &D work	To support the R&D based production of classical and P&P drugs. Soft loan to the medium and small scale ASU industry.
9.	Availability of the Raw-material involving endangered Species of Plant and Animals	Rs. 20.00	Cultivation of plant and raring of animal species with the help of Deptt. of Environment, Wild Life and Marine Department etc.
10.	Scheme to supply of authentic raw-material for ASU & H industry	Rs. 20.00	Procurement, storage and quality certification of raw-material for ASU & H drugs

			with the co-operation of Warehousing Corporation, NMPB, State MPBs and other like-wise agencies
11	Strengthening of the Drug Control Division in Centre and States	Rs. 20.00	Infrastructure, HRD and expertise etc. to be provided to Centre and State Licensing & Regulatory Authorities in different States of the country
12	Traditional quality standards on manufacturing & testing	Rs. 10.00	Expert Institutes/Industries
13.	Survey & Marketing of Raw materials, Documentation/ Pharmacovigilance	Rs. 05.00	Expert institutes/ PLIM/ HPL Research Councils
	Total financial implications during the 11th Plan	**Rs. 485.00**	

Recommendations
of
Task Force
on
"Research and Development (AYUSH)"
for
11TH Five-Year Plan
(2007-2012)



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Introduction

The Indian Systems of Medicine (Ayurveda, Siddha, Unani, Yoga and Naturopathy) & Homoeopathy have been in vogue in the country from earliest times and catering the medical needs of most of our people. During last decade the use of these systems has expanded globally and gained popularity. They have not only continued to be used for primary health care of poor and developing countries, but have been used in where conventional health care system is predominant in National Health Care Delivery.

The Deptt. of AYUSH, Ministry of Health & Family Welfare has established the Research Councils as apex bodies for formulations of research in Ayurveda, Siddha, Unani, Homeopathy & Yoga and Naturopathy on scientific lines. These research councils are focusing on major areas viz. Literary and Fundamental Research, Drug Research comprising of cultivation, collection, standardization and safety profile evolution, Clinical Research including RCH, Nutraceuticals, Cosmetics and Biomedical Instrumentation Research being executed through a network of field Units, Laboratories throughout the country.

For sustainable utilization, potentials of these systems and sensitizing the public, the R & D activities are to be disseminated among masses through well-designed IEC material, health melas, exhibitions and other health awareness programmes.

Research on National Priorities and the areas where these systems have potential are to be stressed. The emphasis should be projected on life style disorders and refectory conditions viz. Cancer, AIDS, Diabetes etc. including quality of life concerns. Exploration and validation of knowledge in public domain, ethno-botanical and tribal folk claims find place in the projection of the research Councils and research Institutes. For quality research in AYUSH the infrastructure as well as the promotional avenues in research councils is to be strengthened.

Currently the quality of research is hampering due to insufficient human resources and lack of proper infrastructure facilities in the research comment under AYUSH as well as in the other AYUSH setups viz. academic Institutions and Universities all over India.

1. Priority Areas: The Research areas needs to be identified on the basis of national priority and considering the strength of AYUSH system; comprising of Life Style Disorders, Psychosomatic conditions, Refractory conditions, Degenerative conditions.

1.1 National Priority Programmes: Emphasis should be given to National Priority programmes viz. Malaria, Filariasis, HIV/AIDS and conditions viz. Diabetes mellitus, Hypertension, Cardiovascular diseases, Cancer etc.

1.2 Fundamental Research: The AYUSH systems are based on certain unique concepts and philosophies. Scientific exploration of fundamentals (*Prakriti/Mijaj* -Bio-identity, Pharmaco-kinetic principal-*Rasa, guna* etc.) is essential to evolve objective parameters for diagnosis and management. Biomedical instrumentation is to be developed to rationalize these basic concepts. Need is also felt to modernize therapeutic procedure based therapies like Panchakarma etc. to achieve clinical success through maintaining controlled conditions. The expertise and facilities etc from reputed national institutes, teaching institutes etc may be well utilize for this purpose.

1.3 Drug Research: With tremendous expansion in the use of these systems worldwide, safety, efficacy and quality control of these medicines and procedures based therapies have become important concerns for both health authorities and public. The quality assured drugs play a pivotal role in achieving clinical success

1.3.1 Focus needs to be emphasized on Safety aspects of ASU & H drugs to induce confidence among consumers besides enhancing the acceptability of these drugs globally. A data bank of safety profile of most commonly used ASU & H drugs indexed in respective formularies may be generated. This can be used as referral safety margins.

1.3.2 Pharmaco-dynamics of the AYUSH drugs needs to be studied viz., half-life, drug receptor interaction and therapeutic index etc. to understand the possible mode of action. Simplified parameters may be evolved to create gross evidence.

1.3.3 Isolation of marker compounds and a library of such compounds may be developed to meet the quality assurance requirements of ASU & H drugs. This can be executed through strengthening the existing councils institutes.

1.3.4 The Primary screening of safety and efficiency of AYUSH drugs / new therapies / claims using cell lines, in vitro techniques may be focused to evaluate their action rapidly.

1.3.5 As the drugs of metal/mineral and marine origin are required in lesser doses, fast acting, more efficacious, patient compliant and prevalent among the prescribers, research is to be focused in this area to create evidence on safety, efficacy and quality assurance. At present parameters are lacking in this area from raw to finished products as these data are needed for quality checks and licensing. For

this purpose suitable protocols are essential. One existing center of Research councils under AYUSH may be developed as centre of excellence with modern sophisticated instruments like ICP – MS etc. for Metal based drug research. This institute will execute and coordinate research with other institutes having such expertise.

1.3.6 User friendly, commercially available kits may be developed for rapid screening of adulterants like steroids, heavy metals etc. A project should be initiated at CCRAS in collaboration with the institutes having such expertise to evolve methodology and development of kits during the plan period**.** This will help the licensing authorities, policy makers, industries and public for checking safety of ASU & H drugs.

1.3.7 National Medicinal Plants Repository; The information and technical know how related to proper identification, availability, distribution, abundance, threat status, growing techniques, collection, utilization and other related aspects of wild as well as cultivated medicinal plants may be provided through this centre for the benefit of AYUSH researchers and industry.

1.4 Clinical Research:

1.4.1 Observational Research: Gross information on efficacy and clinical safety of classical ASU & H drugs may be generated to create evidence through observational research. A concise case record form may be designed to generate the information. For first instance, 50 most commonly prescribed drugs may be studied involving 100 ASU & H physicians in 20 hospitals /teaching institutions. This will create primary evidence on clinical safety, efficacy, and prevalence of use and patient compliance of ASU and H drugs and generate leads for further research. A centralized computerizing monitoring setup may be established to co ordinate the work

1.4.2 Contraceptive agents: In recent years greater emphasis is being laid to find out a safe, effective and reversible drug for control of fertility the major advantage in developing an antifertility agent from ASU & H drugs is cost effectiveness, and low toxicity. Emphasis is to be focused on various ASU & H drugs and folklore claims for safe and effective contraception.

1.5 Promotional Health:

1.5.1 Nutraceutical Research: The ASU & H systems offer numerous potential immunomodulatory, antistress; antioxidant and nutritive agents. Focus may be emphasized on development of ASU & H Nutraceuticals for school going

children, and sports personnel, geriatric population, military personnel working in adverse climatic conditions to improve their physical and mental endurance, and improvement of quality of life etc.

1.5.2 Promotive medicine: As ASU & Homoeopathy systems are having potential in preventive and promotive medicine, the R&D in this area may be stressed. . Certain drugs may be developed as preventive agents in various common chronic conditions (e.g. Cardio-protective drugs). Besides this certain Naturopathic and Yoga measures need to be validated to create scientific evidence.

2. Strengthening of Research Councils under AYUSH

2.1 Promotional Avenues: The Government of India Ministry of Health and Family Welfare, Research Councils under AYUSH for formulation of research on scientific lines as per the pattern of ICMR. Even though the Research councils are executing research in respective AYUSH system more than 35 years, the scientists who are engaged in the research are not being benefited by a time bound promotional avenues. Many of them are even retiring in the same post after serving for more than 30 years. This is causing great dissatisfaction frustration and discrimination among the researchers as their contemporaries in other organization are benefited with time bound promotions. Besides this the research councils failed to attract of intellects and the scientist who are joining are leaving the council since there is no different carrier advancement prospectus. This ultimately affecting the quality of Research. Considering this, a definite time bound promotional policy may be evolved for the Research councils under AYUSH, which presently non -exists. The existing promotional policies adopted by other sister councils, Viz., ICMR, may be implemented in AYUSH Research Councils. This would definitely improve the quality of research in AYUSH Research councils.

2.2 Reorganization: The peripheral units of Research councils have been scattered in various states with insufficient infrastructure, insufficient technical expertise and supporting staff. This is hampering the quality research output. In view of increasing popularity of AYUSH systems globally and to execute the research work at per global standards need is being felt to develop specialty centres in various sub specialties of AYUSH. Keeping in view the above issues the need is felt to reorganize the field units by merging some of them to develop centers of excellence. These centers would be focusing on research in specific aspects. These centers of excellence will have to be facilitated with centralized networking for effective functioning and monitoring.

2.3 Establishment of New Peripheral Institutes under CCRYN: Central Council for Research in Yoga & Naturopathy so far does not have any peripheral Institutes. Thus this Council has to establish 5 Central Research Institute (CRIs) and 10 Regional Research Institutes (RRIs) in different parts of the country. *The CCRYN would manage to get 5-10 acres of land free of cost from the State Govts. or from the private organizations. These CRIs and RRIs certainly would make a break through in the research of preventive, promotive, curative aspects of Naturopathy & Yoga.*

3. HRD activities and Development of Infrastructure for R&D:

3.1 Selected existing centres under AYUSH may be developed as a NABL certified laboratories. These Institutes will screen the ASU & Homoeopathy drugs for their quality. Once this setup is successful, it will help in formulation of policy.

3.2 To update the knowledge and skills among the AYUSH Researchers, teachers, and students and supporting technical staffs, need is felt to impart periodical trainings. One existing Institute of the council may be developed as a training Institute in AYUSH Research & Teaching. This will also provide Continuing Medical Education (CME)/Re Orientation Training Programme (ROTP) to physicians of ASU and H/conventional medicine/teachers and students. Data management is a prime requirement of clinical research and for this purpose one existing centre under AYUSH councils may be developed as a centre of excellence in biostatistics.

3.3 The past and present work of M.D. and Ph.D research of AYUSH institutes /colleges may be indexed. A central data bank may be generated and the same should be updated in yearly basis. For first instance, one nodal AYUSH institute in each state is to be identified to index the data.

3.4 IEC cell in AYUSH Research Councils: For dissemination of concept and research finding of AYUSH system, each council may establish an IEC cell. This setup will be responsible for preparing IEC material, organizing camps, health melas, health awareness weeks, campaigns etc. for sustainable utilization of AYUSH system and sensitizing the mass.

3.5 Collaborations would be established with National and International Universities and Colleges, institutions, Pharmaceutical industries etc to carry out research in various aspects of AYUSH system by making use of their expertise in related fields. Projects may

be invited from international organization in line with existing extra mural projects with appropriate modification and hike in the budget.

3.6 Support for development of R&D infrastructure in AYUSH medical colleges & Pharmacy colleges: Financial assistance to selected AYUSH /Medical Colleges and Pharmacy Colleges may be extended for development of infrastructure for research in AYUSH systems to educate & initiate the research activities. Establishment of Integrated Research Departments in major institutes viz., Medical Colleges, Universities, AYUSH Colleges may be encouraged to boost the integrated and interdisciplinary research as existing in USA /UK etc. The research councils should extend proper guidance, consultancy and Scholarship to Post graduate and Doctoral scholars for appropriate designing and executing the research.

4. Focus on Amchi system of Medicine (Sowa- Rigpa) and Tribal Health Care:

The Amchi system of Medicine is an integral part of Ayurveda has further developed during Buddha's period. Besides Ayurvedic Philosophy and concepts, certain more information on diagnosis and therapeutics has been added. This system is prevalent in confined regions of India viz. Himalayan region and other countries. To preserve the cultural heritage and proper utilization of benefits of this system, more focus is required during the next Five Year Plan. The existing centre under AYUSH (CCRAS) at Leh may be upgraded with all facilities.

The Research councils are maintaining Tribal Health Care Research Projects at different parts of country, engaged in study the living conditions of tribal people ,Collect folk medicines used by them, availability of medicinal plants of the area, Propagation of knowledge about hygiene, Prevention of diseases, Use of common medicinal plants of the area, Provide medical aid at their door steps, Collect information related to health statistics, Geographical picture, climate and environmental profile, Study of dietetic habits and of prevalence of diseases. More focus needs to be accorded on the issue to protect the knowledge in public domain.

Summary and budgetary details

S.No.	Activity	Financial Requirements	Implementing Agency
1.	**Priority Areas**		
	1.1 National Priority		Research councils under AYUSH
	1.2 Fundamental Research	20 Crores	Research councils under AYUSH / Academic institutes
	1.3 Drug Research		
	1.3.1 Safety studies ASU and H Drugs	30 Crores	Research councils under AYUSH / Academic institutes
	1.3.2 Pharmacodynamics Kinetics of AYUSH drugs	30 Crores	Research councils under AYUSH / Designated Collaborative Institutes
	1.3.3 Isolation of marker compounds of AYUSH drugs	15 Crores	Research councils under AYUSH / Designated Collaborative Institutes
	1.3.4 In Vitro Rapid screening of AYUSH drugs for Safety.	15 Crores	Research councils under AYUSH / Designated Collaborative Institutes
	1.3.5 Research on Metal and Mineral/ Marine AYUSH drugs	20 Crores	CCRAS
	1.3.6 Rapid screening kits for ASU and H drugs	4 Crores	CCRAS
	1.3.7 National Medicinal plant Repository	10 Crores	CCRAS
	1.4 Clinical Research		

	1.4.1 Observational Research	25 Crores	Research councils under AYUSH / Designated Collaborative Institutes
	1.4.2 AYUSH Contraceptive drug development	5 Crores	CCRAS/CCRUM Designated Collaborative Institutes
	1.5 *Promotional Health*		
	1.5.1 Nutraceuticals Research	15 Crores	CCRAS/CCRUM Designated Collaborative Institutes
	1.5.2 Promotive Medicine	5 Crores	Research councils under AYUSH / Designated Collaborative Institutes
2.	**Strengthening of Research Councils Under AYUSH**		
	2.1 Promotional Avenues		AYUSH Dept. / Research Councils under AYUSH
	2.2 Re organization	60 Crores (@ of 20 Crores for each of CCRAS/CCRUM and CCRH	CCRAS/CCRUM and CCRH
	2.3 Establishment of New Institutes under CCRYN	**115Crores** -5 CRI@ of 11 Crores each = 55 Crores -10 RRI@ of 6 Crores each = 60 Crores	CCRYN

3.	**Support for HRD related activities to R&D and Development of Infrastructure**		
	3.1 Up gradations of AYUSH Labs	50 Crores	CCRAS/CCRUM /CCRH
	3.2 Training for AYUSH Personnel	2 Crores	CCRAS
	3.3 Indexing of Research	5 Crores	Research Councils under AYUSH
	3.4 IEC Cell in research councils	5 Crores	Research Councils under AYUSH
	3.5 Collaborative studies	25 Crores	Research Councils under AYUSH
	3.6 Development of R&D Infrastructure in other institutes	15 Crores	AYUSH Dept. and Research councils
4.	**Focus on Amchi system of Medicine (sowa-Rigpa)and tribal health care**	10 Crores	CCRAS
	Total	**481Crores**	

CONCLUSIONS

- **Focus on stream lining of AYUSH research so as to get quality output of scientific evidences for global acceptance.**
- **focus on safety and quality concerns of ASU and Homeopathic drugs.**
- **Validation of basic and fundamental aspects and certain unique procedure based medical and Para surgical therapies of AYUSH systems.**

- **To accelerate the research, national and international networking as well as collaboration is to be established through physical and functional integration.**
- **The AYUSH setups viz., councils, universities, medical colleges ,industries are to be strengthened in terms of R&D to streamline the research.**
- **Streamlining the AYUSH research through Integrated Drug Development.**
- **To improve the professional efficiency of the researchers, the promotional avenues in AYUSH councils should be implemented in line with ICMR patterns.**

Meeting of Task Force (R&D) of AYUSH Dept. for 11th Five Year Plan

Venue: - CCRAS HQrs. Date: - 4th July, 2006 at 11.00 a.m.

The following attended the meeting

Experts

Dr.G.S.Lavekar, Director, CCRAS
Dr.S.K.Sharma, Advisor (Ay.), Dept. of AYUSH
Prof. Shakir Jameer, Dean, Jamia Hamdard
Dr.C.K.Katiyar, Director, Herbal Division, Ranbaxy
Dr. G.P. Dubey, Former Dean (Ay), BHU, Varanasi (Not Attended)
Dr. Vasantha Muthuswamy, Sr. DDG, ICMR, New Delhi (Not Attended)
Dr. Muhammed Majeed, CMD, Sami Labs, Bangalore (Not Attended – Attended by Dr. S. Natarajan Executive Vice President, R&D, Sami Labs)

Invited Experts

Dr.Padma Venkat, FRLHT, Bangalore
Dr.Y.K.S.Rathore, Director I/C, Central Revenue Control Lab., New Delhi
Dr.M.K. Siddiqui, Director, CCRUM, New Delhi
Dr.B.T.C.Murthy, Director, CCRY& N, New Delhi
Dr.C.Nayak, Director, CCRH, New Delhi
Dr.G.Veluchamy, Director, CRI (S), Chennai

Secretariat

Sh R.S Yadav , A.D.(Doc)
Dr.S.Venugopal Rao, A.D. (P'cology) CCRAS
Dr.N.Shrikant, A.D. (Ay.) CCRAS Dr.A.C.Kar, A.D. (Ay.) CCRAS
Dr. M.M. Padi A.D. (Ay.), CCRAS
Dr.V.P.Singh, A.D.(Hom.) CCRH
Dr. Shamshad A.Khan, A.D. (Chemistry) CCRUM
Dr.Rajiv Rastogi, A.D. (Nat.), CCRY&N
Dr. Sulochana Ro(Ay)
Sh Rk.Shingal S.O
Dr.Khalid Mahmood Siddiqui, R.O. (U), CCRUM
Dr.Bishnupriya Dhar, R.O.(Botany) CCRAS
Dr.G.V.R.Joseph, R.O. (Botany), CCRAS
Shri Ravinder Singh, R.O. (Chemistry), CCRAS
Dr.Alka Aggarwal, R.O. (Chemistry), CCRAS
Dr.Pramila Pant, R.O. (Chemistry), CCRAS
Dr.Sudesh Gaidhani, R.O. (P'cology), CCRAS
Dr.Ritu Sethi, Consultant, GTP, CCRAS

NATIONAL MEDICINAL PLANTS BOARD
DEPATMENT OF AYUSH

Report of the Task Force on Medicinal Plants for the Eleventh Five Year Plan

17th July 2006
New Delhi

CONTENTS

ABBREVIATIONS

AEZ	**:**	Agri Export Zone
APEDA	**:**	Agricultural and Processed Food Products Export Development Authority
AYUSH	**:**	Ayurveda, Yoga & Naturopathy, Unani, Siddha and Homoeopathy
ASU	**:**	Ayurveda, Siddha and Unani
CSIR	**:**	Central Scientific Industrial Research
CITES	**:**	Convention on International Trade in Endangered Species of Wild Fauna & Flora
DBT	**:**	Department of Bio-Technology
DST	**:**	Department of Science and Technology
GAP	**:**	Good Agriculture Practices
GACP	**:**	Good Agricultural and Collection Practices
GCP	**:**	Good Collection Practices
GHP	**:**	Good Housing Practices
GSP	**:**	Good Storage Practices
ICFRE	**:**	Indian Council of Forestry Research & Education
ICAR	**:**	Indian Council for Agriculture Research
IIFM	**:**	Indian Institute of Forest Management
ISMH	**:**	Indian Systems of Medicine and Homoeopathy
MDAF	**:**	Market Development Assistance Fund
MPCA	**:**	Medicinal Plants Conservation Areas
NRHM	**:**	National Rural Health Mission
NMPB	**:**	National Medicinal Plants Board
QPM	**:**	Quality Planting Material
SMPB	**:**	State Medicinal Plants Board
WHO	**:**	World Health Organisation

TASK FORCE REPORT FOR THE ELEVENTH PLAN

Background

1.1 The World Health Organisation (WHO) estimates that 80% of the population in developing countries relies on traditional medicines which are mostly plants based. Also, modern pharmacopoeias contain at least 25% drugs derived from plants and many others, which are synthetic analogues, built on prototype compounds isolated from plants. Transition from synthetic drugs and microbially produced antibiotics to plant based drugs is rapidly gaining acceptance.

1.2 While modern medicines has in many parts of the world, replaced traditional medicinal practices for the benefit of individual and public health, people world over are becoming increasingly aware of their limitations i.e. ineffectiveness in dealing with large number of diseases conditions, the often unforeseen negative side effects of synthetic drugs and the ever – rising cost of medical treatment. As a result, the public and public health specialists throughout the world are taking second look at alternative or complementary medicine in general and traditional plant based drugs in particular.

AYUSH Systems of Medicine

2.1 The Indian Systems of Medicine viz. Ayurveda, Siddha, Unani, Yoga, Naturopathy & Homoeopathy cover both the systems, which originated in India and outside but got adopted and adapted in India in course of time. Originating from the Vedas, Ayurveda is the oldest surviving medical system in the world which is about 5,000 years old. These systems are based on theory, formal education and a traditional pharmacopoeia which emphasizes the **"Holistic approach"**.

2.2 The features of Indian Systems of Medicine, namely, their diversity and flexibility, accessibility, affordability, a broad acceptance by a large section of the public, comparatively low cost, a low level of technological input and growing economic value have great potential in the larger sections of our people's need. It is estimated that about 500 million people in India wholly or partially rely on traditional systems for their health care.

2.3 Ayurveda, Yoga & Naturopathy, Unani, Siddha and Homoeopathy **(AYUSH)** offer a wide range of preventive, promotive and curative treatments that are both **cost-effective** and **efficacious**. There is need for ending the long neglect of the system in our health care strategy. The resurgence of interest in Ayurveda, Yoga and in other Indian Systems of Medicine in India and abroad and the opportunities created by such interest have been well perceived by the Government. The ISM industry has also to play a key role in the overall growth of the health care system and, therefore, under NRHM government has taken steps for mainstreaming of AYUSH. Also, the Research and Development activity has to keep pace with the growing demand and expectations of the people.

Trade in Herbal & Medicinal Plants

3. International market of medicinal plants is estimated to be over US $ 60 billion per year, which is growing at the rate of 7%. It is estimated to grow to US $ 5 trillion by 2050. Indian herbal exports valued at about Rs. 874 crores in 2001-02 constitute about 73% in the form of crude drugs and extracts and 27% as finished products. Medicinal plants constitute nearly 13% of the global market. There is thus an enormous scope for the India to also emerge as a major player in the global herbal product based medicines. However, this requires a grand strategic plan, which takes a holistic view of the entire situation to boost exports.

Medicinal Plants

4.1 India is one of the 17 mega bio-diversity rich countries and has 7% of the world's bio-diversity. There are 15 agro-climatic zones, 45,000 different plant species out of which 15,000 are medicinal plants. About 8,000 plants are used in Indian Systems of Medicine and folk medicines. Out of these 1,700 medicinal plants, have been documented in Traditional Medicines of which about 500 species are mostly used in the preparation of drugs.

4.2 In a wider context, there is a growing demand for plant-based medicines, health products, pharmaceuticals, food supplements, cosmetics, etc., in the national and international markets. Conservation and sustainable use of medicinal plants are issues on which immediate focus is required in the context of conserving biodiversity and promoting and maintaining the health of local communities, besides generating productive employment for the poor with the objective of poverty alleviation in tribal

and rural areas. It is estimated that medicinal plants, their collection creates 35 million mandays of employment.

4.3 At present, about 90% collection of medicinal plants is from the wild, generating millions of mandays employment (part and full) and since 70% of plants collections involve destructive harvesting many plants are endangered or vulnerable or threatened. Currently medicinal plants are collected without paying attention to the stage of maturity and their sustainability. They are stored haphazardly for long period of time under unhygienic conditions. This results in deterioration in quality. Such materials are not acceptable to importers and standard manufacturing drug units. Promoting cultivation of medicinal plants on an extensive scale, therefore, assumes importance for conservation of bio-diversity, uniformity of the quality of raw material in terms of active ingredients, quality of drugs and standardisation.

National Medicinal Plants Board

5.1 The National Medicinal Plants Board was set up through a Government Resolution notified on 24th November, 2000 under the Chairmanship of Union Health & Family Welfare Minister.

5.2 The Board is guided by an apex body headed by Minister of Health & Family Welfare as its Chairperson and Minister of State for Health & Family Welfare as its Vice-Chairperson. The other members are:

- Secretaries of Ministries/Departments of AYUSH, Environment & Forest, Scientific and Industrial Research, Bio-technology, Science & Technology, Commerce, Industrial Policy and Promotion, Expenditure, Agricultural and Cooperation, Agricultural Research & Education and Tribal Affairs as Ex-Officio members.
- Four nominated members having expertise in the field of medico-ethnobotany / pharmaceutical industry of ISM, marketing and trade, legal matters and patents.
- Four nominated members representing exporters of ISM&H drugs, NGOs responsible for creating awareness and increasing availability of medicinal plants, growers of medicinal plants, and research and development industry groups in the area of medicinal plants.
- Two nominated members representing federations/co-operatives dealing with medicinal plants,
- One member from Research Councils of Department of AYUSH, One member from Pharmacopoeial Laboratory of Indian Medicines /Homoeopathic Pharmacopoeia Laboratory, Ghaziabad , and Two members representing State Governments (by rotation every two years).
- CEO as the Member Secretary.

5.3 The term of nominated and other non-official members is for 2 years.

Functions of the NMPB

6. Co-ordination with Ministries/Departments/Organisations/State/UT Governments for development of medicinal plants in general and specifically in the following fields:

(i) Assessment of demand/supply position both within the country and abroad.
(ii) Advise concerned Ministries/Departments/Organisations/State/UT Governments on policy matters.
(iii) Provide guidance in the formulation of proposals, schemes and programmes etc.
(iv) Identification, inventorisation and quantification.
(v) Promotion of ex-situ and in-situ cultivation and conservation.
(vi) Promotion of co-operative efforts among collectors and growers and market their produce effectively.
(vii) Setting up of database system for inventorisation, dissemination of information and facilitating the prevention of Patents.
(viii) Undertaking and awarding Scientific, Technological research and cost-effectiveness studies.
(ix) Development of protocols for cultivation and quality control.
(x) Encouraging the protection of Patent Rights and IPR.

Main Features of the Schemes Implemented by NMPB

7.1 *Promotional Schemes:*

Grants can be provided for following activities:

- Survey and inventorisation,
- In-situ conservation and ex-situ cultivation,
- Production of quality planting material,
- Extension activity (IEC),
- Demand & Supply studies,
- R&D,

- Value addition

7.2 *Commercial Schemes*

Grants can be provided for following activities:

- Production of quality planting material,
- Value addition,
- Innovative marketing mechanism,

7.3 *Contractual Farming Schemes*

Financial Assistance is provided for Cultivation of identified medicinal plants by farmers.

7.4 *Eligibility*

7.4.1 Promotional and Commercial Schemes:–

GovernmentOrganisations/NGOs/ Universities/Co-operatives, etc.

7.4.2 Contractual Farming Scheme: –

Registered growers, association/federation of growers, traders, manufacturers, society, pharmaceutical company, NGO & recognized research institutes Public Sector Undertakings (PSUs) or any group of people who have three years experience in medicinal plants.

Funding Pattern:

8.1 For Promotional Scheme of R&D, technology transfer, production of QPM, In-situ conservation/Ex-situ cultivation – A grant of Rs. 10 lacs per year subject to the maximum of Rs. 30 lacs over a period of three years and a maximum of Rs. 25 lacs for R&D projects.

8.2 For training, workshop and seminars Rs. 2 lacs for State level, Rs. 3 lacs for Regional level, Rs. 5 lacs for National level and Rs. 10 lacs for International level.

8.3 For Contractual Farming schemes there is a subsidy of 30% of the project cost subject to a maximum of Rs. 9 lacs.

Priority Species of Medicinal Plants

9.1 The Board has identified 32 species of medicinal plants based on their commercial value for overall development through its schemes. The identified 32 plants are:-

S. NO	COMMON NAME	BOTANICAL NAME	ENGLISH NAME
1.	Amla	*Emblica officinalis* Gaertn	Indian gooseberry
2.	Ashok	*Saraca asoca* (Roxb.) de wilde	Ashok
3.	Ashwagandha	*Withania somnifera* (Linn.) Dunal	Winter cherry
4.	Atees	*Aconitum heterophyllum* Wall. ex Royle	Aconite
5.	Bel	*Aegle marmelos* (Linn) Corr.	Stone apple
6.	Bhumi amlaki	*Phyllanthus amarus* schum & Thonn. (*P. niruri* Linn.)	Bitter gooseberry
7.	Brahmi	*Bacopa monnieri* (L.) Pennell	Thyme leaved gratiola
8.	Chandan	*Santalum album* Linn.	White sandalwood
9.	Chirata	*Swertia chirata* Buch-Ham.	Chirata
10.	Daruhaldi	*Berberis aristata* DC.	Indian barberry
11.	Gudmar	*Gymnema sylvestre* R. Br.	Ram's horn
12.	Guduchi	*Tinospora cordifolia* Miers.	Heart leaved moonseat
13.	Guggal	*Commiphora wightii* (Arn.) Bhandari	Indian bedellium tree
14.	Isabgol	*Plantago ovata* Forsk.	Physilium husk
15.	Jatamansi	*Nardostachys Jatamansi* DC.	Musk root
16.	Kalihari	*Gloriosa superba* Linn.	Malabar glory lily
17.	Kalmegh	*Andrographis paniculata* Wall. ex Nees	Kreat
18.	Kesar	*Crocus sativus* Linn.	Saffron
19.	Kokum	*Garcinia indica* Chois.	Kokum
20.	Kuth	*Saussurea costus* C. B. Clarke (*S.lappa*)	Costus

21.	Kutki	*Picrorhiza kurroa* Benth ex Royle	Picrorhiza
22.	Makoy	*Solanum nigrum* Linn.	Black night shade
23.	Mulethi	*Glycyrrhiza glabra* linn.	Liquorice
24.	Pathar chur (Coleus)	*Coleus barbatus* Benth.	Coleus
25.	Pippali	*Piper longum* Linn.	Long pepper
26.	Safed Musli	*Chlorophytum arundinaceum* Baker (C. borivillianum)	Musli white
27.	Sarpgandha	*Rauwolfia serpentina* Benth. ex Kurz	Rauwolfia
28.	Senna	*Cassia angustifolia* Vahl.	Senna
29.	Shatavari	*Asparagus racemosus* Willd.	Indian asparagus
30.	Tulsi	*Ocimum sanctum* Linn.	Holy basil
31.	Vai Vidang	*Embelia ribes Burm. f.*	Butterfly pea
32.	Vatsnabh	*Aconitum ferox* wall.	Indian aconite

9.2 The Board, however, entertains projects covering species other than those listed above based on local demand.

Major Achievements:

10.1 The National Medicinal Plants Board has so far sanctioned 3888 projects involving financial assistance of Rs.89.22 crores under **Contractual Farming Scheme** which are being implemented in different parts of the country. **(Annexure I)**

10.2 About 33,190 hectares of area covered under cultivation of various prioritized medicinal plants.

10.3 739 projects involving financial implication of Rs.89.19 crores sanctioned under **Promotional Scheme** since the year 2001-02.

10.4 More than 23,000 hectares of land has been covered under programmes for conservation of medicinal plants/herbal gardens.

10.5 35 State Medicinal Plants Boards (SMPBs) have been set up in States/UTs and financial assistance provided for their functioning.

10.6 In order to ensure availability of raw material of quality and safety, the Board has sanctioned 141 projects under its promotional scheme for production of quality planting material.

Budget /Expenditure

11. Information regarding the budget allocation and expenditure during the 10th Five Year Plan period is as under

S. No.	Year	Budget Estimate (Rs. in lacs)	Revised Estimate (Rs. in lacs)	Actual Expenditure (Rs. in lacs)
1	2002-2003	2316.00	1500.00	1580.12
2.	2003-2004	2000.00	1500.00	1829.09
3.	2004-2005	2305.00	2310.00	2755.38
4.	2005-2006	3000.00	3000.00	3491.98
5.	2006-2007	3800.00	3800.00	1162.36 (upto June,2006)
	Total	13421.00	12110.00	10818.93

Achievements during the 10th Plan Period

12.1 Information regarding the expenditure incurred, number of projects sanctioned etc under Promotional Schemes during the 10th plan period is as under:

#	Year	Expenditure	No. of Projects	Activities undertaken
1	2002-03	735.26	109	In-situ & Ex-situ conservation, in-situ & ex-situ cultivation, QPM, Herbal Garden, R&D, Value addition or survey & inventorisation
2	2003-04	450.70	65	-do-
3	2004-05	988.70	178	-do-
4	2005-06	1252.15	229	-do-

5	2006-07	169.85	22	QPM, Herbal Garden, R&D, Value Addition, IEC

The details are indicated at Annexure II.

12.2 Information in respect of Contractual Farming Scheme is as under:

#	Year	Expenditure (Rs. in Lacs)	No. of Projects	Area of land covered (in acres)
1	2002-03	193.07	63	3917.50
2	2003-04	836.32	688	8645.45
3	2004-05	1576.02	1316	43933.00
4	2005-06	1608.81	1233	17481.00
5	2006-07 (Part)	1116.91	588	8999.00

Monitoring and Evaluation

13.1 The Medicinal Plants Board has facilitated setting up of 35 State Medicinal Plants Boards (SMPBs) in States/UTs. Proposals for financial assistance are to be submitted (relaxable in case of govt. organisations) through these SMPBs.

13.2 With a view to strengthening the capability for monitoring, evaluation and project management of funds to the tune of 5% of the amount released during the previous year to a State/UT are provided to SMPBs for the purpose of monitoring and evaluation. This is being released to the State/UT governments based on the demands received.

Evaluation Study by IIFM, BHOPAL and ICFRE, DEHRADUN:

14.1 Evaluation study was carried out by IIFM, Bhopal and ICFRE, Dehradun with a view to assessing the impact of the programme, the constraints with regard to organizational and financial aspects and delivery of subsidy and marketing. The study was carried out by sampling methodology.

14.2 Under the Commercial Projects the emphasis has been on a few species like Safed Musli, Amla, Isabgol, Senna and Ashwagandha. The other prioritized species have been cultivated over less than 30% of the total area covered.

14.3 The average success rate of commercial projects is more than 77%. The average per acre production was recorded as the highest in Chhattisgarh and lowest in Rajasthan. The production in Rajasthan is lowest due to the harsh soil and climatic conditions.

14.4 Most of the In-situ conservation projects under Promotional Schemes were implement by Forest Departments and regeneration of targeted species were found satisfactory. However, survey and inventorisation of endangered species was not properly carried out.

14.5 Though the Quality Planting Material was raised under the Promotional projects, there was no proper networking for its supply to the cultivators.

14.6 The Commercial projects resulted in 36% of the cost being incurred on employment. More than 50% of the cultivators were those with area more than 6 acres. In other words the beneficiaries were mostly medium and large farmers. The average representation of women was 17%.

14.7 Satisfaction level of flow of loan and subsidy and service provided by State Medicinal Plants Boards (SMPB), Banks and other Departments was recorded as unsatisfactory.

14.8 Community participation in In-situ/Ex-situ/QPM production projects was recorded as very low.

14.9 MoU between the Buyer and Seller was a very weak link. More than 50% of the cultivators claimed to have sold 100% of their production. Only less than 7% were not able to sell their products. 30% of the growers sold their products after some processing. Marketing, therefore, remained a constraint. However, there were Farmers Federation in some states which had taken the responsibility of marketing and such innovations were found useful and therefore, needed to be replicated.

14.10 Most of the farmers wanted the Contract Farming supported by National Medicinal Plants Board (NMPB) to continue by better networking between corporate, retailers, manufacturers and the farmers.

14.11 The National Medicinal Plants Board (NMPB) promoted projects had a positive impact in terms of production of medicinal plants, which has increased quantitatively. Performance of the projects implemented by some of the NGOs was noteworthy.

14.12 Monitoring by the SMPBs was found to be either absent or weak except in some of the states like Rajasthan and Madhya Pradesh.

14.13 Requirement of certification of UCs by a Chartered Accountant has been a cause of delay in submission of UCs by farmers, affecting delay in release of next installment. This in turn delayed the project implementation.

14.14 There were isolated cases of SHGs providing linkage for implementation of Promotional projects. This had a positive impact on the project implementation.

14.15 The organisation structure of SMPB is generally weak. Mostly the SMPBs are located in the ISM&H Departments headed by ISM&H officials. There are also states where SMPBs are located in the Forests/Horticulture Departments. In states where either the SMPBs are in the Forest Departments or where IFS officer are on deputation with ISM&H Department, the functioning of SMPB is much more effective.

14.16 On the whole, the implementation and achievement of objectives presents a mixed picture. There is, therefore, need to critically look at the shortcomings so that the progarmme achieves the objectives of increasing availability of quality raw material for industry, improved economy for the farmers, employment generation and better health security for the people.

APPROACH DURING THE 11th PLAN

15.1 The Medicinal Plants Board has been able to implement various programmes for cultivation, conservation and overall development of medicinal plants sector throughout the country. It is observed that there is good awareness created among the government/non-government organizations and individuals regarding the medicinal plants and their development due to the activities of the Board. There is, however, an urgent need for a quantum jump in its activities both qualitatively and quantitatively in view of the emerging challenges that the herbal sector faces globally. India has the strength and potential which needs to be harnessed.

15.2 The Board is thus required to discharge its functions to ensure sustainable development of the medicinal plants, related knowledge and the trade of plant products at national and global level and thus play a major pivotal role in development of national economy and public health. The Board also needs to develop policies and strategies to facilitate achieving such objectives, and implement the same through concerned agencies including the Central/State/UT governments. Along with it, the Board is to provide financial support as well as technical guidance for collection, cultivation of raw material, its marketing and production of finished product. The Board, in conjunction with other Ministries/Departments and other stake holders, will have to work towards eliminating export of raw herbs and medicinal plants by the end of the 11th plan so that only valued added items and finished products are exported out of the country. Another equally important goal for the 11th Plan will be to reduce the dependence on forest for the raw material from present 90% to close to 50%.

Thus the thrust Areas for Medicinal Plants Sector during XI Plan will be;

(i) Survey and inventorisation of data regarding demand and availability of medicinal plants at national level at the first instance and successively establish such data in respect of other countries.

(ii) Identification of medicinal plants for development and cultivation on priority, and implementation of programmes in this regard, keeping in view the requirement of industry at national level and for export separately.

(iii) Development of Good Agriculture Practices for prioritized plants.

(iv) Development of data base regarding availability and trade of medicinal plants in wild.

(v) Conservation along with sustainable collection and re-generation of medicinal plants in the wild.

(vi) Cultivation on an intensive scale preferably in clusters with facilities for value addition, processing and marketing through the mechanism of Processing Zones in identified regions

(vii) Measures to ensure conservation and re-generation especially of rare, threatened, endangered plants.

(viii) Development of suitable cultivars, agro-technologies and availability of sufficient quality plantation material.

(ix) Setting up of e-network and Web Portal for complete information on demand, supply, markets, plant varieties, availability of plantation material, agro-technologies, market demand, GAP monographs, trade and prices etc.

(x) Implementation of programmes for large scale cultivation and sustainable harvesting of identified medicinal plants as well as coordination with other departments and organizations in government/non-government sector for this purpose.

(xi) Development of Good Collection Practices to ensure sustainable harvesting and proper utilization of wild sources.

(xii) Preparation of monographs of important medicinal plants

(xiii) Development of techniques to assess and objectively state a sustainability index of given forest area.

PROPOSALS FOR THE 11TH FIVE YEAR PLAN

Conservation/regeneration of medicinal plants in forest areas

16.1 Out of about 800 species of medicinal plants only less than 30 species are cultivated to any significant degree. Most of the other species are still sourced from the forests. In-situ conservation of medicinal plants therefore has been an important plank of the strategy so far. During the 10th Plan, 20,000 hectares of forest area was covered with survey & inventorisation and in-situ conservation of medicinal plants occurring in different forest types. During the 11th Plan it is proposed to cover 50,000 hectares of forest area in different forest types and agro-climatic zones. This is sought to be achieved through Joint Forest Management Committees/Van Panchayats who will be actively associated in planning, identification of species of medicinal plants to be regenerated/ planted and supported with infrastructure for value addition and marketing. At the State level the programme will be supervised and coordinate by Forest Department and at District level by the Forest Development Agencies (FDAs).

16.2 In addition, Medicinal Plants Conservation Areas (MPCA) need to be established to conserve rare, endemic and endangered medicinal plants which will be used as a germ plasm for future scientific study and a source of authentic seed material in different forest types of India. One of the major constraints in the cultivation and production of quality raw material for industry is the authentic seed material of certified quality. During the 11th plan it is proposed to establish 100 such gene banks in different agro climatic regions and forest types targeting top 300 species of medicinal plants identified on the basis of their conservation status, and market demand.

Community Herbal Gardens

17.1 Whereas In-situ conservation seeks to conserve/regenerate rare and endangered medicinal plants in forest areas where they occur, ex-situ conservation aims at propagation and multiplication of medicinal plants outside their normal habitat. Community herbal gardens seek to serve the twin objective of creating a germ plasm of rare and endangered medicinal plants outside their normal habitat on the one hand and propagation and multiplication of medicinal plants in vacant public lands, panchayats and government lands with active participation of the local community and thereby serve not only the health care need of the

community but also produce raw material of quality. During the 10th Five Year Plan 4,000 hectares of area has been brought under the herbal gardens.

17.2 During the 11th Five Year Plan it is proposed to cover 30,000 hectares of area with community Herbal Gardens in 10 states. This is proposed to be done by merging the Vanaspati Van scheme with the NMPB scheme as indicated in **Para – 23.**

Cultivation

18.1 Unsustainable harvest from forest areas, growing demand of domestic AYUSH/herbal industries for the raw material, increasing export demand for herbal extracts, phytochemicals and other plant based products, dietary supplements, neutraceuticals, cosmeceuticals and the increasing emphasis on quality, safety standards of herbal products makes it essential to go in for large scale cultivation of medicinal plants. During the 10th Plan, 35,000 hectares of area was brought under cultivation under the Contractual Farming scheme of the Board. Although the Board has prioritized 32 species of medicinal plants based on their demand in domestic as well as in export market, more than 50% of the area was covered with four species, namely, Isabgol, Senna and Safed Musli and Aonla.

18.2 During the 11th Five Year Plan it is proposed to cover 1,50,000 hectares of area under Contract Farming with financial support from the Board. Out of this, 1,20,000 hectares is proposed to be done in six Medicinal Plants Processing Zones and the balance 30,000 hectares in States/areas not covered under MPZs.

18.3 Ministry of Agriculture on the initiative of Medicinal Plants Board has decided to include medicinal and aromatic plants within the scope of National Horticulture Mission (NHM). Considering the higher outlays available under NHM it is proposed to suggest additional 1,50,000 hectares to be covered with medicinal and aromatic plants under NHM during the 11th plan. Thus, in all total area proposed to be brought under cultivation with medicinal and aromatic plants during the 11th Plan will be 3, 00,000 hectares.

18.4 Cultivation under contractual farming scheme under the existing operational guidelines is a part of the Central Sector Scheme which the Medicinal Plants Board operates. Based on the experience gained during the 10th plan, it is proposed to take up this activity as a Centrally Sponsored Scheme, with 100% Central share. This is being suggested to ensure greater

involvement of State Governments and to devolve responsibility for planning, implementation and monitoring at the State level.

Medicinal Plants Processing Zones

19.1 During the 10th Plan emphasis has been on cultivation. However, such cultivation has been sporadic. As a result cultivation and post harvest management could not be synergized in a holistic manner. The concept of MP processing zones attempts to take a comprehensive look at a particular produce/range of products located in a contiguous area for the purpose of development and sourcing the raw material, their processing/packaging leading finally for marketing and export. The entire effort is thus centered on clustered approach for identifying potential products, their geographical region in which these products are grown and adopting an end to end approach of integrating the entire process right from the stage of production till it reaches the market.

19.2 Agriculture Produce Export Development Agency (APEDA) under the Ministry of Commerce during the 10th Plan has set up two Agri Export Zones for medicinal plants in Kerala and Uttaranchal. There are in all 60 AEZs for fruits, vegetables, flowers etc. in the country. Their implementation however has several short comings. These short comings have to be addressed while setting up Medicinal Plants Processing Zones. It is proposed to set up six Medicinal Plants Processing Zones during the 11th Five Year Plan with the following activities:

(viii) Setting up six Medicinal Plants Processing Zones in different agro-climatic zones.
(ix) Identification of 20 species of medicinal plants for different agro-climatic zones.
(x) Cultivation @ of 20,000 hectares per zone = 1, 20,000 hectares.
(xi) Post Harvest Management (Storage cum drying, grading, sorting etc.).
(xii) Marketing (Price support, setting up mandies, brand promotion etc.).
(xiii) Extension (Quality Planting Materials, training and farmers' mobilization).
(xiv) Explore possibility of creation of additional infrastructure in existing Agri-Export Zones to make them suitable for requirements of medicinal Plants Sector.

19.3 The activities will involve an outlay of Rs. 85 crores for each of the MPZs during the 11th Plan.

Prioritized List of Medicinal Plants

20.1 The Board has prioritized 32 medicinal species for cultivation/ conservation. During 10th Plan the cultivation has, however, been limited to about 20 species. Out of these four species, namely, Isabgol, Senna, Aonla and Safed Musli covered more than 50% area brought under cultivation programme.

20.2 The inclusion of plants in prioritized list has to be on the following grounds:

(i) Demand from domestic ASU/herbal industry.
(ii) Criticality for ASU formulations.
(iii) Status in the wild – endangered, critically endangered, threatened etc.
(iv) Demand in International market.

20.3 Based on the above parameters the prioritized list is under revision.

Pattern of Subsidy

21.1 The existing Operational Guidelines provide for 30% subsidy for projects under Contractual Farming scheme. Selection and prioritization of plant species for financial assistance under the schemes of National Medicinal Plants Board (NMPB) should however be based on the demand in domestic and international markets, their availability in the wild and their conservation status (critically endangered, threatened, vulnerable etc.). Priority should also be accorded to plants which are presently imported. Also, the quantum of subsidy should be

different for trees which have long gestation period as opposed to crops that are annuals, bi-annuals and perennials but start yielding after 1-2 years. In order to encourage cultivation of plants of long gestation period the matter needs to be pursued with the state Forest Departments / Ministry of Environment & Forests to cover about 50% of trees/perennials of medicinal use in their afforestation programmes implemented through Joint Forest Management. Also, the existing level of subsidy under Contractual Farming scheme needs to be reviewed considering that trees have long gestation.

21.2 The species like Isabgol and Senna, included presently in the prioritized list of 32 plants, are extensively cultivated in the states of Rajasthan, Gujarat and Tamil Nadu and have got integrated in the farming systems in these states. In the light of this, the crops like Isabgol, Senna and Safed Musli should be accorded lower priority and subsidy reduced from the present level of 30%.

21.3 There are other species like Guggal, Ashok, Arjun, Bael, Harad, Baheda, Nagkesar, Amla which have long gestation period and, therefore, will require support during the gestation period. Also, there are species which are on CITES Appendix I and II, Schedule VI of Wildlife (Protection) Act, and plants presently imported negative list of plants for export which need to be supported through cultivation. The Technical Committee of medicinal Plants board after deliberations decided to recommend graded pattern of financial assistance by way of subsidy as detailed below:

(i) 10% subsidy for plants which are under commercial cultivation largely like Senna, Isabgol and Safed Musli.

(ii) 50% subsidy for cultivation of plants which are presently imported and require specific technology expertise and greater inputs.

(iii) 75% subsidy for species of plants which are included in CITES list, schedule VI of Wildlife Protection Act and negative list of exports. This will convey strong bias in support of conservation of medicinal plants and protection of bio-diversity.

(iv) 30% subsidy for other identified and prioritized plants.

21.4 At present, subsidy is chanelised through banking institutions who carry out the appraisal and also advance loan. The minimum requirement of loan is 10% of the project cost. Suggestions have been received that as an alternative, the subsidy could also be chanelised through the industries or producer companies. A producer company as per amendment in the Company's Act in 2002 is company in which the farmers are the share holders. Such mechanisms for flow of subsidy need to be considered on a pilot scale with necessary safe guards.

21.5 Subsidy should, also, be linked to the adoption of quality standards, conservation of rare and threatened plants, propagation of long gestation crops like trees and other perennials and cultivation on marginal and waste lands. Also, to make the whole value chain quality conscious, the subsidy as well as loan should be targeted only to those farmers, processors and manufacturers of value added products and traders who deal with certified materials.

Standardization and Quality Control

22.1 At present 90% of the medicinal plants (in numbers) are sourced from the forests collected from different forest areas with different soil, climatic conditions and forest types. Even the season of collection for the same species could vary from forest type to forest type. Also the system of harvesting, drying, storage could vary from place to place. These affect the quality of the raw material which may vary in its active ingredients, potency, presence of microbial contaminants, heavy metals etc. Standardization of raw material quality and the finished products, therefore, are crucial to the quality, safety, efficacy of the finished products. This will depend upon standardization in agricultural practices, collection, harvesting and storage practices.

Developing Good Agriculture and Collection Practices (GACPs)

22.2 WHO has evolved Good Agriculture and Collection Practices (GACPs) for medicinal plants. Some of the countries like China, Japan and European Union have also evolved their own GACPs for medicinal plants. It is proposed to evolve and notify Good Agriculture Practices (GAPs), Good Collection Practices (GCPs), Good Storage Practices (GSPs) for medicinal plants during the 11th Plan. These will consists of two sets of guidelines. There will be generic guidelines followed by species specific GAPs/GCPs/GSPs for the major medicinal plants under cultivation for which monographs are proposed to be prepared with the help of the Research Institute/ Universities having expertise in the subject. In all 100 monographs are proposed to be prepared during the 11th Plan.

22.3 Promotion of organic farming and introducing the use of bio-fertilizers and bio-pesticides as a component of GAP will have to be a major initiative during the 11th Plan.

Development of Monographs for important medicinal plants

22.4 Comprehensive monographs on important medicinal plants backed by scientific research on quality, efficacy and safety standards is crucial to acceptance of our herbal/medicinal plants products in the developed countries where regulatory laws are very strict. Through a collaborative programme it is proposed to prepare monographs of important medicinal plants and registration thereof in the positive list of plants in the main importing countries.Yearly monitorable targets for preparation of monographs and their registration in the positive list will have to be worked out.

22.5 A large number of medicinal plants which are perennial (like shrubs and climbers) and tress which have long gestation period do not have protocols for sustainable harvest. Almost 70% of the medicinal plants are harvested by destructive means involving uprooting of plants, debarking of trees or complete felling of trees. It is proposed to fund Research & Development activities so as to develop protocols for sustainable harvest of such medicinal plants which should include such plant parts which may not involve destructive harvesting. It is proposed to cover 20 species during the 11th Plan.

Quality Planting Material

22.6 For any cultivation programme to succeed, it should be backed by a strong network of nurseries which will produce planting material of certified quality. For medicinal plants it is essential that while selecting the variety/genotype due regard is paid to the presence of active

ingredients, disease resistance and growth in the agro-climatic conditions where cultivation of plants is proposed to be taken. During the 11th Plant it is proposed to identify agencies in the government and non-Government sector, backed up by independent certification, which will be used as focal points for raising nurseries and supplying Quality Planting Material to the farmers and cultivators.

Certification

22.7 Independent Certification of the quality and safety standards right from the stage of seeds, planting material to GAPs, GCPs, GSPs and eventually the raw material produced is key to securing remunerative price for the produce. At present there is no institutional mechanism for independent certification of the quality of seeds used in the nurseries, quality of planting material, GAPs, GAPs and GSPs and the raw material produced. During the 11th Plan an Independent Certification mechanism is proposed to be put in place which will not benefit the growers but also the manufacturers and users of medicinal plants. For small and marginal farmers, group certification of GACPs and organic farming backed by government support may have to be considered.

Setting up laboratories for quality testing

22.8 APEDA has schemes for reimbursement of quality testing charges for horticulture, agriculture and animal products. They also have an infrastructure for testing facilities. These subsidies, reimbursements and use of quality assurance structures should be available to the entire value chain of medicinal plants, both for exports as well as domestic consumption.

22.9 Price of raw material produced by growers is intimately linked to the quality. At present the quality testing labs are few and far between. It is proposed to provide financial support for strengthening testing labs where they already exist and set up new ones preferably through a public-private parternership mechanism.

Vanaspati Van Scheme

23.1 In order to augment availability of medicinal plants for Reproductive and Child Health Programme (RCH) under the Indian Systems of Medicine, the scheme of Vanaspati Van was started during the 9th Plan and continued during the 10th Plan. The scheme is being implemented by the Department of family Welfare. Though the scheme was to be transferred from Department of Family Welfare to the Department of AYUSH, the transfer could not materialize.

23.2 Under the scheme plantations of medicinal plants are proposed to be raised over waste lands and denuded forest lands of 3,000 – 5,000 hectares of contiguous area. The scheme is implemented in states which agree to constitute a state level body, registered as a society under the Societies Registration Act. The guidelines provide for the societies to be headed by forest officials with representatives of Department of Family Welfare and Department of Indian Systems of Medicine as their executive members. Each Vanaspati Van is rligible for financial assistance not more than Rs. 5 crores @ Rs. 1 crore per year.

23.3 At the time of formulation of the scheme, it was recognized that it should be administered by the ISM&H Department. However, the scheme was kept with the Department of Family Welfare in view of the inadequate infrastructure with the Department of ISM&H at that point of time.

23.4 So far, the Department of Family Welfare has financed 9 Vanaspati Vans and released Rs. 18.65 crores with Rs. 26.35 crores to be released during the remaining period of 10th Plan and 11th Five Year Plan.

23.5 In view of the fact that the scheme of Vanaspati Van and the schemes of Herbal Garden that are being implemented by National Medicinal Plants Board (NMPB) have identical objectives, it is proposed that the scheme of Vanaspati Van may be merged with scheme of National Medicinal Plants Board (NMPB) along with the outlays that are proposed for the scheme with enhanced coverage during the 11th Plan. The modalities for transfer of scheme from Department of Family Welfare to Department of AYUSH are being finalized with the

department of Family Welfare and the transfer is expected to materialize in the next few months.

23.6 During the 11th Five Year Plan it is proposed to cover 30,000 hectares of area with Community Herbal Gardens(as vanaspati van) in various panchayats, government and public lands. These community herbal gardens, which should focus on perennials and trees, will be managed with active participation of the community through the institution of joint forest management committees/ van panchayats

Post Harvest Management

24. For cultivation programme to succeed it must have forward linkage with the infrastructure for value addition, processing, drying and storage network and a market. During the 10th Plan the emphasis has largely been on in-situ conservation and cultivation programme. One of the estimates suggests that on an average 30 to 40 % of the raw material received by the manufacturers gets rejected at the factory site on account of the presence of microbial contaminants, moisture, soil, dust, stone chips and even heavy metals. While extensive training to the collectors/cultivators/farmers will be a major activity, a network of storage godowns and semi processing facilities near the major collection centres and cultivation areas, managed either by government, PSU, Co-operative Federations or Panchayats will go a long way in quality raw material being made available to the manufacturers besides improving the safety and efficacy of the final product. It is proposed to take up projects for post harvest management and capacity building the thrust areas of the sector during the 11th Plan.

Marketing

25. The activities that are proposed to be taken up for marketing during the 11th Plan are as under:

(i) Online registration and trading of medicinal plants through a e-portal developed by National Medicinal Plants Board (NMPB).

(ii) Periodic reporting of information on medicinal plants traded in different mandies in the country with volumes and prices. This will create a transparent system of information, dissemination of information on market and prices of medicinal plants traded across different regions. This will also impart transparency to an otherwise unorganized trade.

(iii) Most of the manufacturers source their raw material from traders. There are a number of intermediaries involved between the basic collector and the manufacturer. Consequently, it becomes difficult to ascertain the correct source of the raw material, whether cultivated or collected from the wild and the period of collection. In order to establish traceability it is proposed to initiate a system of registration of traders and manufacturers and mandatory maintenance of records by the manufacturers and traders with regard to the raw material used, purchased and sold. It is proposed to put in place an institutional mechanism with necessary statutory support, if required, during the 11th Five Year Plan.

(iv) Medicinal plants cultivation being a new and up coming activity in agriculture sector, there are risks and uncertainties about the markets and prices. It is proposed to provide support price to cultivators of medicinal plants to insulate them from the vagaries of market fluctuations and unfavourable climatic factors. This is proposed to be done by providing financial support to state level organisations identified for the purpose of marketing of medicinal plants in the state.

(v) There is a Market Development Assistant Fund (MADF) available with Ministry of Commerce. It is proposed that fund should support brand and market development initiatives of the Ayush sector in view of its unique niche market. This will require higher investment and expenditure to gain market penetration and exporters should be assisted to enable them to participate in trade fares and as well as sale promotion activities. On the lines of support to horticultural

produce, APEDA pavilion in international trade fares should also promote medicinal plants.

Research & Development

26.1 Under the Promotional scheme, NMPB has been supporting Research & Development projects through various research institutes/agricultural universities. The nature of the projects financed and their outlays are indicated at **Annexure – III.**

26.2 R&D activity is also being supported in a substantial way by CSIR, DBT, DST, ICFRE and ICAR through their research institutes, regional research institutes, research laboratories also. This is expected to continue during the 11th Plan.

NMPB will in particular support R&D in following areas:

(a) Implementation of specific projects to ensure basic and strategic research for developing information on processes/products and patenting of active molecules of important plants so as to provide leadership role to India in the emerging IPR regime.
(b) Development of plant varieties for important, endangered and threatened medicinal plants based on their usage in Ayurveda and other Indian Systems of Medicine.
(c) Identification of gaps in documentation of medicinal plants resource data, different agro-climatic zone-wise, detailed inventory of medicinal plants, their region-wise occurrence and preparation of a National Atlas on medicinal plants.
(d) Development of agro-techniques, Good Agriculture and Collection Practices (GAP), Good Collection Practices (GAP), Good Storage Practices (GSP) for important medicinal plants species and preparation of monographs. 100 species are proposed to be covered.
(e) Development of protocols for micro propagation (Tissue culture) for species of plants which are otherwise difficult to propagate.
(f) R&D on value addition, sustainable harvest and storage.

(g) Bio-prospecting of new medicinal plants for desired activities to switch over to species not covered in Red Data book but with activity and target molecules similar to those present in the endangered species.

(h) Studies on inter-cropping of medicinal plants with agri/ horticultural crops and evolve models of different crop combinations for different agro-climatic conditions.

(i) Converting new leads into commercial technologies – the missing link with high tech science and the traditional knowledge.

(j) Scientific studies on uptake of heavy metals by medicinal plants and technologies to remove/minimize such contamination.

Information, Education and Communication

27. The activities proposed to be covered under IEC during the 11th Plan are proposed to be as under:

(a) Training of primary collectors in Good Collection Practices (GCPs) and Good Harvesting Practices (GHPs).

(b) Awareness through audio-visual aids, talks, seminars, training, workshops etc.

(c) Training & visit of growers and collectors to demonstrations plots, research centres and other related organisation in the country.

(d) Training of farmers and cultivators of medicinal plants in GAPs and GSPs.

(e) Extension/Publicity material on medicinal plants.

(f) Participation of progressive farmers, cultivators, collectors, manufacturers and other stake holders in important trade events/exhibitions and expositions in Herbal/Medicinal plants sector in India and abroad.

Other policy initiatives

28.1 There are about 9,000 Ayush pharmacies/manufacturing units. Most of the pharmacies of the units are not GMP compliant. In addition, there are herbal units manufacturing extracts and

other herbal products. For these units to be competitive in the world market, they have to be GMP compliant. There is a lot of technological upgradation required even in respect of medium and large industries. Therefore, a Venture Capital fund/Technology Upgradation fund of the size of Rs. 200-300 crores is required to be created for modernization of Ayush/Herbal industry.

28.2 Considering that most collection from forest areas is in an unsustainable manner without due regard to the conservation status of medicinal plant, the industry using material collected from forest areas needs to contribute towards conservation which could be contributed by way of a cess. In other words, industry using raw material collected from forest could be imposed a cess where as those using cultivated medicinal plants could be given incentive. This would harmonize pricing of medicinal plants and give better returns to growers of medicinal plants.

28.3 Special rates of interest for agricultural/horticultural crops (7% announced recently by the Government) should be available to medicinal plants also. Besides, the scope of the scheme of crop insurance should be enlarged to cover medicinal plants in view of the risks that a new crop like medicinal plants is subjected to due to climatic and market related factors.

28.4 Electricity rates in most states are charged at commercial rates for energy used in cultivation of medicinal plants as opposed to electricity rates for agricultural/horticultural crops which are subsidized. This needs to be taken up with appropriate authorities to permit same tariffs for cultivation of medicinal plants as for agricultural crops.

28.5 The wide variety in medicinal plants usage (about 500 species which are actively traded) make them vulnerable to variation in taxation norms under state sales tax/VAT rules. It is proposed that the uniform exemption of VAT/sales tax regime should be introduced for medicinal plants to give a boost to the sector and its trade within the country. This would be in line with the Government exemption of essential food related commodities from VAT incidence.

Organizational Issues

29.1 A comprehensive study is presently being undertaken to recommend the organizational structure, its size, the number of administrative and technical posts required and whether the Board should be an administrative board as at present, or a statutory/autonomous Board

created under an Act of Parliament or a registered society under the Societies Registration Act. Based on the report of the consultants, the matter is proposed to taken up with the Cabinet for appropriate decision.

Role of other Ministries

30. NMPB has a role of coordinating with other ministries/departments. Some of the important ministries/departments where close coordination will be required are as under:

(a)	Conservation and sustainable harvesting/cultivation friendly Forest/wildlife laws	**Ministry of Environment & Forests.**
(b)	Cultivation of Medicinal & Aromatic plants which have an established market at national and international level; Market networking, Support for warehouses, buy-back arrangements, extension of information under NHM	**Ministry of Agriculture/NHM/ICAR**
(c)	Research and Development, identification of suitable cultivars, SOPs, monographs, pharmacological certification, documentation, IPR related research etc	**Ministry of Science & Technology/ CSIR/ICAR/ICFRE**
(d)	e – network: Centre – State – Village level	**Ministry of Information & Technology**
(e)	MPZs (Creation of infrastructure of Laboratories, warehouses, processing facilities etc)	**Ministry of Commerce**

Financial Outlays

31.1 The financial outlays for the activities proposed during the 11th Plan are as under:

Sl No.	**Activity**	**Rate per unit**	**Total coverage**	**Outlay (Rs in (Crores**
1	Conservation/re-generation (hectare)	@ Rs. 20,000 per/ha	50,000	100
2	Gene Banks 100 hectare each (nos.)	@ Rs. 20,00,000 per/gene bank	100	20
3	Vanaspati van / Herbal gardens (nos.)	@ Rs. 5,00,00,000/garden	10	50
4	Cultivation (hectare)	@ Rs. 30,000	30,000	90
5	Medicinal Plants Processing Zones(6), covering cultivation(1,20,000 ha) and PHM infrastructure	1. Cultivation : Rs. 60 crores/MPZ 2. PHM : Rs. 15 crores/MPZ 3. QPM/Certification : Rs. 5 crores/MPZ 4. Marktg & Project Mgmt etc. Rs. 5 crores/MPZ	1,20,000 ha. (@ 20,000 ha. per MPZ)	510
5	Post harvest management	Lump sum		50
6	R & D	Lump sum		100
7	IEC including capacity building and training	Lump sum		50
8	Organization, marketing, IT etc.	Lump sum		30
	Total			**1000**

Yearly phasing of outlays

31.2 The year – wise outlays will be as under

Financial Year	**Financial outlays proposed (Rs. in crores)**
2007-08	150
2008-09	175
2009-10	200
2010-11	225
2011-12	250
Total	**1000**

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REPORT

OF

TASK FORCE ON MAINSTREAMING OF AYUSH SYSTEMS IN XITH PLAN

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Introduction

1. There is global resurgence of interest in Indian Systems of Medicine, particularly Ayurveda and Yoga. Homoeopathy also is getting popular in India and abroad. There are many indicators, which underline the shift towards global acceptance of complementary/alternative systems of medicine because of their holistic approach, cost effectiveness, cultural-friendliness and virtually no side effects. Though modern medicine has played a critically important role in reducing drastically the morbidity and mortality due to communicable diseases, Allopathy (modern medicine) falls short of patients' expectations in non-communicable and life style related disorders.

2. The National Health Policy (1983) envisaged integration of Indian Systems of Medicine & Homoeopathy with the modern medical system for the first time. This was intended to pave the way for improved outreach & delivery of health services. The Government of India established a separate department under the Ministry of Health & Family Welfare in 1995 for giving focused attention to the development and optimal utilization of Ayurveda, Yoga & Naturopathy, Unani, Siddha and Homeopathy (AYUSH), which are officially recognized systems of medicine in India. The highest policy-making body for health sector- Central Council for Health & Family Welfare resolved several times the need to have integration of different medical systems for improving health delivery. The 10th Five Year Plan reiterates the need for integration and mainstreaming of ISM&H with modern systems of medicine

so that people have access to both modern as well as time tested Indian systems of health care.

3. Presently, the state of policy, regulation and development of AYUSH systems in the country is by and large in accordance with the WHO guidelines for utilization of traditional medicine in national health system. Recognizing the inherent strengths of the Indian systems of medicine, the National Policy on Indian Systems of Medicine and Homoeopathy-2002 underlines the need for integration of AYUSH in health care delivery system and national programmes and optimal use of the vast infrastructure of hospitals, dispensaries and trained practitioners. The policy is aimed at promoting comprehensive & holistic health and expand the outreach of health care to the masses through preventive, promotive and curative interventions by improving the quality of clinicians and teachers by revising curricula to contemporary relevance and to re-orient and prioritize research in ISM&H to gradually validate therapies and drugs to address in particular the chronic and emerging life style diseases.

EXISTING STATUS

4. The Indian Systems of Medicine and Homoeopathy (ISM&H) include Ayurveda, Siddha, Unani, Homeopathy and drugless therapies such as Yoga and Naturopathy. The major strength of the systems is their easy accessibility, wide acceptability, cost effectiveness, simple technological inputs for manufacture of medicines, and use of natural products. India has a vast network of governmental and private AYUSH institutions. There are 458 AYUSH colleges with admission capacity of 23,555, 98 colleges with post graduation facilities, 3,100 hospitals with over 65,000 beds, 22,300 dispensaries, 6,95,024 registered practitioners and 9,257 licensed pharmacies. In the central sector apart from 45 hospitals there are 81 dispensaries under CGHS, 54 dispensaries under central research councils, 162 under Ministry of Railways, 159 under Ministry of Labour, 28 under Ministry of Coal and 2 Ayurveda dispensaries under Ministry of Defence. The primary health network comprises of 1,42,611 Sub-centres, 22,974 PHCs and 3,215 CHCs. The number of PHCs is comparable to 22,300 AYUSH dispensaries, which are otherwise not symmetrically distributed.

5. As per an estimate, about 70% Indian population uses traditional medicine for health care. The rate of population coverage through AYUSH is Health about 7

doctors per 10,000 population. The regulatory, administrative and institutional set ups of AYUSH are by and large similar to that for allopathic system. As far as the acceptability of indigenous medical systems is concerned, Ayurveda is popular in Kerala, Gujarat, Himachal Pradesh, Rajasthan, Karnataka, Maharashtra, Madhya Pradesh, Jharkhand, Chhattisgarh, Uttar Pradesh, Uttranchal and Orissa. The prevalence of Unani system is comparatively higher in Andhra Pradesh, Karnataka, Tamilnadu, Bihar, Maharashtra, Madhya Pradesh, Uttar Pradesh, Delhi and Rajasthan. Siddha system is well established in Tamilnadu and of late is spreading to other southern states. Homeopathy is more or less equally spread all over the country but in higher demand in Kerala, Uttar Pradesh, West Bengal, Orissa, Andhra Pradesh, Maharashtra, Punjab, Tamilnadu, Gujarat, Bihar and North Eastern states.

THE PROBLEM

6. The full potential of AYUSH still remains to be realized due to varied reasons. The foremost among them are lack of essential staff, infrastructure, diagnostic facilities and drugs in the existing health care network of AYUSH. The other important reasons are inadequacies in quality of training of practitioners and their non-involvement in the national health and family welfare programmes. Treatment meted out to the institutions & manpower of these systems is not at par with that being given to allopathic system. Not only there is a strong justification for the coexistence of both allopathic and AYUSH systems in PHCs/CHCs and district hospitals, but that every effort must be made to bring about functional integration without compromising the ethical purity of either system. Many valuable insights into the best possible management of many chronic ailments may well come from non-allopathic systems of health care. However, it would be essential to take steps to ensure that the AYUSH systems grow in a pristine form by research and development of their own concepts. While use of modern diagnostic tools and quality control techniques is an absolute must to place these systems on a sound evidence base, modernization process should not be allowed to reduce these systems to a mere appendage to allopathy. We must not try and produce a hybrid doctor who has the strengths of neither system and the faults of both

Mainstreaming of AYUSH.

7. The concept of mainstreaming of AYUSH revolves around optimal use of all available human resources for health care provision in the country. Mainstreaming has essentially two aspects. Firstly, qualified AYUSH practitioners can fill the manpower gaps in Primary Health Care, particularly at the sub-centre/PHC level. Secondly, there should be a cafeteria approach of making AYUSH and Allopathic systems available under one roof at the PHC/CHC/District Hospital level for facilitating patient choice and cross-system referrals. Apart from improving peoples access to health services, it will also provide choice of treatment to the patients. There are areas, where the traditional system has overwhelming evidence of better cure and / or disease management e.g. Ayurveda has better cure for piles, fistula, jaundice, arthritis; Unani in menstrual disorder, psoriasis; Homoeopathy in allergic disorders. Similarly Yoga has proven strength in managing life style disorders and psycho-somatic diseases. Therefore, there is a need for service integration by providing the best from each system to patients as a Complementary/ Alternate/ Adjuvant therapy. Efforts should be made to provide quality education in each of the system to develop confident physicians of each systems, visionary teachers and researchers for a need based health care. Health care involves curative, preventive, promotive and rehabilitative aspects. Therefore the education, research, drug development and practice should address all these aspects.

8. As far back as in 1920, the Nagpur Session of the Indian National Congress recommended that there should be an Integrated System of Medicine & Research which should be combination of both our Ayurveda, Unani Tibb, Siddha and Modern Medicine system choosing the best out of the all and thus supporting one system by another to serve mankind to its best. For the purpose of promotion and education of Integrated Medicine, first such college was started in 1934. After Independence, the Chopra Committee, Pandit Committee, Dave Committee & Uduppa Committee etc. constituted by Central Government also recommended Integrated System of Medicine.

9. FACTS IN MEDICINE

- Every medical discipline has something to offer in Health care- The objective of education and Research should be to harness these strengths.
- No system can tackle all the health concerns of the society- Encourage different systems to bring their best remedies in the menu on offer to patients.
- Several diseases are self limiting; no medication is needed- Educate public.
- Every system can tackle few diseases effectively- Integrate this in the Health care delivery. Public shall have a choice to avail what they want.
- No system has credible treatment option for few diseases- Try the benefit of different systems as adjuvant. Enhance the medical research in those areas.
- Majority of the health problems are at primary level. Increase the out reach of health care delivery at the village level
- Most of these can be managed with any one of the systems of medicine
- Each of the systems has its own unique strength to tackle few diseases for which there is no effective treatment in other systems. Educate people and professionals through the IEC programmes through Government media.

Status of Mainstreaming of AYUSH

Centrally Sponsored Scheme on Hospital and Dispensary

10. Centrally Sponsored Scheme under the plan head of 'Hospitals & Dispensaries' administered by the Department of AYUSH is being utilized for creating AYUSH facilities in allopathic hospitals / dispensaries. The scheme has following components:

I.	Establishment of Specialized Therapy Centre with hospitalization facility for Panchkarma / Kshar Sutra therapy of Ayurveda or Regimental Therapy of Unani Medicine or Siddha or Yoga & Naturopathy or Homoeopathy as the case may be;
II.	Establishment of Specialty Clinic of ISM&H i.e. system specific outdoor treatment center;
III.	Setting up of ISM&H wing in District Allopathic Hospitals – Outdoor as well as

	Indoor facility of one or two systems of ISM&H is required to be set under this component of the scheme; and
IV.	Supply of essential drugs to State rural & backward area dispensaries.

The provision of 100% Central assistance under the scheme has facilitated States in relocation/creation of AYUSH outdoor facility in PHCs and specialized therapy facility in CHCs and AYUSH wing in District/Sub-divisional hospitals. **However, the scheme does not provide for supporting salary component of manpower required to run such facilities.** As detailed in **Annexure – 1**, many States have implemented the scheme. Under the NRHM operational frameworks States would be able to utilize NRHM funds for hiring AYUSH doctors for providing AYUSH facilities at PHC/CHC level. States would be able to dovetail AYUSH components in their State's Specific action plans.

MAINSTREAMING UNDER NATIONAL RURAL HEALTH MISSION (NRHM)

11. The National Rural Health Mission (NRHM) has been launched with a view to bringing about improvement in the health system and the outreach of health facilities for the benefit of people living in the rural and backward areas of the country. The mission seeks to provide universal access to equitable, affordable and quality health care, which is accountable as well as responsive to the needs of the people, reduction of child and maternal deaths, population stabilization, gender and demographic balance, etc. Revitalization of local health traditions and mainstreaming of AYUSH have been incorporated in visions, goals and strategies of the National Rural health mission. The objective of the integration of AYUSH in the health care infrastructure is to re-enforce the existing public health care delivery system, with the use of natural, safe and eco-friendly remedies, which are time tested, accessible and affordable. The roadmap of mainstreaming of AYUSH has been conveyed to the States through a joint letter dated 12.08.2005 from Secretary (AYUSH) and Secretary (Health) (**Annexure – 2)**. The roadmap seeks provisioning of AYUSH facilities in PHCs and CHCs with placement of AYUSH doctors and providing medicines.

12. NRHM is fully committed to mainstreaming AYUSH within the mainstream health delivery system. This involves support to the physical and functional integration of the systems so that both systems flourish under one umbrella. In line with its commitment to mainstream AYUSH activities the Department has agreed that in the current year at least 2000 AYUSH doctors in the eight EAG states and in J&K, would be located either at the PHC or the CHC. Of that 1000 would be by relocation from the existing AYUSH doctors in Government. Service. The remaining one thousand would be contractual doctors whose remuneration would be supported trough NRHM funds. The state wise break up of the 2000 doctors would be based on the number of PHCs/CHCs existing in the State. In the IPHS standards for CHCs, which has been finalized by the Department of Health and Family Welfare, there is already a provision for an AYUSH wing. The Standard has been disseminated to the States. NRHM is committed to the upgradation of CHCs to IPHS. However, the matter can be communicated to the States after due approval of the Cabinet of the Implementation Framework of NRHM. The MoU which is under preparation for the XIth Plan would also provide for mainstreaming of AYUSH on the suggested lines.

Can Qualified AYUSH practitioners be utilized for delivery of National Health Programmes?

13. Recognized AYUSH training courses provide basic knowledge to under-graduates regarding anatomy & physiology/biochemistry in addition to clinical knowledge of their own systems. In some States e.g., Maharashtra, Punjab, Himachal Pradesh, Madhya Pradesh, Uttar Pradesh, Gujarat, Chattisgarh and Uttaranchal, these doctors have been authorized by the State Governments to practice modern medicine and are posted in PHCs. As per the judgements of the Hon'ble Supreme Court in Mukhtiar Chand and Poonam Verma cases, a medical practitioner is expected to bring a certain degree of expertise and training to his practice and could be expected to understand the indications/contraindications etc. of the medicines he prescribes to patients. These judgements basically define what is medical negligence. It is the considered view of a study carried out by National Law School, Bangalore that these judgements do not bar cross system practice as long as the same is specifically permitted by a State Government (if the State Medical

Register recognizes qualified AYUSH practitioners as part of that medical register (Annexure-3)). Therefore, subject to a State Government authorizing AYUSH practitioners to prescribe certain categories of Allopathic medicines and AYUSH practitioners being provided proper orientation training, they could be utilized in the delivery of National health programmes like Malaria/TB/HIV-AIDS etc. When these programmes can be administered by ANMs there is no reason why AYUSH doctors should not be roofed in to strengthen the nation-wide implementation of these programmes.

Recommendation

14. Physical Integration

14.1 Mainstreaming under NRHM is being pursued by facilitating convergence of AYUSH infrastructure with that of modern medicine. It has been decided to have AYUSH facilities in PHC and CHC either through relocation of AYUSH dispensaries or contractual appointment of AYUSH doctors. On account of asymmetrical budgetary provisions and infrastructure of AYUSH in the states, the task of physical as well as functional integration of AYUSH with modern medical system is progressing slowly. NRHM guidelines for supporting salary component/contractual appointment of AYUSH doctors in PHCs/CHCs are likely to be issued shortly. Relocation of AYUSH dispensaries to the nearest PHCs and creation of AYUSH facilities in remaining PHCs has also not been undertaken by the states to the desired extent. In a recent meeting with State Directors/Licensing Authorities it has come to light that AYUSH dispensaries could be shifted to not more than 25% PHCs, remaining 75% PHCs will have to be provided with required infrastructure and AYUSH doctors & paramedical staff. **Hence, to fast track mainstreaming creation of AYUSH facilities in 25% of such PHCs each year in each state should be supported for next three years under NRHM with a view to achieve 100% coverage of PHCs/CHCs in the 11th Five Year Plan.**

14.2. **Hospitals and Dispensaries Scheme of Deptt. of AYUSH should be used to scale up provision of requisite Ayush infrastructure in PHCs/CHCs/District Hospitals while salaries of Ayush doctors would come from NRHM, other infrastructure and Ayush medicines should be provided under the Centrally Sponsored Scheme of Hospitals & Dispensaries.**

Functional Integration

14.3 AYUSH manpower after proper training should be utilized in National Health and Disease control programmes to fulfill the unmet needs of the health sector and augment health delivery & outreach. Department of Health needs to issue directions to the NIHFW and to the states to prepare need based training modules for AYUSH doctors and identify training centres. Similarly ASHAs, ANMs and Anganwadi workers and even Allopathic doctors working in PHCs & CHCs should be given adequate orientation training about the local health practices, simple AYUSH remedies/therapies for common ailments and uses of medicinal plants. **National Institute of Health & Family Welfare and Department of AYUSH should operationalize this and bring out an action plan implementable in a specified time frame.**

14.4 Proper utilization of AYUSH practitioners in health delivery in small villages, clusters and tribal pockets is a feasible proposition, if sub-centers are manned by AYUSH doctors. Presently, the sub-centers are the first points of institutionalized health delivery under the supervision of ANMs. **There is a strong case for posting an Ayush doctor to a cluster of 3 sub centers with each sub center being visited twice in a week which will improve not only the quality of health delivery but also the outreach.** ANMs would be in a position to spare more time for preventive and RCH activities. AYUSH doctors apart from attending to the patients in the sub-centers could be involved in public health education/awareness activities as well.

Revision of AYUSH and Medical Education

14.5 **The AYUSH course curricula also needs modification with inclusion of orientation modules related to National Health Scenario, National Health & Family Welfare programmes,** Regulatory Acts, pharmaceutical industry, global perspectives in Traditional Medicine, Complementing the public health programmes etc. There should be regular mechanism in place for imparting periodic updates on professional knowledge to the AYUSH Practitioners and Para-medics.

Similarly, AYUSH modules should be included in the MBBS course-curriculum for sensitizing medical students about basic principles of Indian systems, which are time-tested, cultural friendly and aimed at preventing diseases and promoting health care. AYUSH wings may be promoted in existing medical colleges for effective integration of AYUSH within the existing health care infrastructure. Thus, The undergraduate (and perhaps the postgraduate) curricula of both these systems must have a component of orientation of the other system. The purpose is not to encourage cross system quackery but sensitize practitioners of one system regarding the strength of the others. The purpose must be to build a system of respect for the other systems and an understanding of how they can mutually complement each other to provide the most comprehensive and cost effective care.

Scientific validation of AYUSH systems.

14.6 Integration of Research Programme for scientific validation and R & D on AYUSH relevant to the national health needs should be evolved and encouraged. **Duly researched and validated AYUSH therapies and remedies with evidence of safety and efficacy should be considered for introduction in National Health Programmes. ICMR/CSIR laboratories/institutions should also undertake need-based research on AYUSH remedies for diseases of national and global importance. Ayush Research Councils must be integrated with the new Department of Medical Research which is proposed to be set up for bringing about synergy in the function of ICMR and Ayush Research Councils.**

14.7 **AYUSH Research Councils should undertake collaborative protocol based peer reviewed researches in collaboration with reputed research institutions in public and private sector.** Emphasis should be on collaborative studies aimed at standardization/quality control and building an evidence base for national and global acceptance of Ayush systems so that they should become central to national health care delivery and not remain at the margins.

14.8 **Research in AYUSH systems needs to be prioritized with equal emphasis on fundamental and applied researches. AYUSH Research Councils need to be completely revamped and professionalised and brought under the umbrella of Flexible Complementary Scheme of in situ promotions for attracting and retaining talents.** If the Central Government is not prepared to treat them as Scientific establishments for purposes of time bound promotion, it would be far better to merge them with ICMR.

Ayurveda/Siddha/Unani Drugs Development

14.9 Standardization and quality control of Ayurveda, Siddha, Unani drugs is a problem area as botanicals do not lend themselves to as precise a quality control as synthetic molecules manufactured under controlled laboratory conditions. This requires State of the art research for developing chemical/biological markers/chromatogram fingerprints/standardized operating procedures and phyto-chemical characterization of Bhasmas. **A state of the art Ayurveda/Siddha/Unani Drug Standardization and Development laboratory should be set up jointly by the Deptt. of AYUSH and CSIR for development of pharmacopoeial standards of ASU drugs for India to capture a fair share of the approx. $ 70 billion international herbal market.**

15. Action plan for Central Government.

(i) **National Institute of Health and Family Welfare, Indian Council of Medical Research (ICMR), Central Council for Research in Ayurveda and Siddha (CCRAS) and Central Council for Research in Unani Medicine (CCRUM) should be tasked to evolve an operational framework for mainstreaming of AYUSH in**

national health care delivery network based on the underlying philosophy of providing choice of treatment to the patients at Sub-centres/PHCs/CHCs/district level and to facilitate cross system referrals complimentary and adjuvant uses of drugs and drugless therapies of various systems with a view to provide cost effective and comprehensive health care. Indian public health standards should accordingly be modified.

(ii) There should be a **proper integration of AYUSH in Directorate General of Health Services (DGHS), Central Government Health Scheme (CGHS), National AIDS Control Organization (NACO) and the proposed Department of Medical Research. AYUSH Research Councils should be brought under the umbrella of the proposed Department of Medical Research for encouraging collaborative and need based research for addressing India's health care problems in a cost effective and comprehensive manner**

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(iii) **Keeping Sub-Centres and PHCs without doctors either due to vacancies or absenteeism should not be allowed to continue any further. All such vacancies should be filled by qualified AYUSH doctors.** A cluster of three Sub-Centres should be provided the services of a qualified AYUSH doctors who should visit each Sub-Centres twice in a week. The first resort of majority of patients in rural areas is traditional medicine instead of leaving patients to find for themselves and be fleeced by quacks, it is better to institutionalize AYUSH systems in sub-centres as a first point of reference for institutionalized health care. AYUSH doctors at sub-centres should also be involved in the administration of National Health Programmes like TB/HIV AIDS/Cancer for which they should be properly trained. This should be a priority area under the newly launched National Health Mission and States should be assisted on a 50:50% matching basis for meeting the expenditure on posting of qualified AYUSH doctors at sub-centres on contractual basis.

(iv) **At present 7 Ayurveda and 5 Unani medicines have been included for distribution in 9 States and 4 cities under the Reproductive and Child Health Programme of the Department of Health and Family Welfare. This course of action should be taken to its logical conclusion.** This list should be expanded

more and more to include Ayurveda, Siddha, Unani and Homoeopathic medicines which have proven efficacy in treatment of various diseases and which have been standardized. ICMR, CCRAS, CCRUM and CCRH should be tasked to take this initiative further.

(v) **Under-graduate and post-graduate courses of various systems should be modified to reflect the global resurgence of interest in traditional and alternative medicine. Medical students of various disciplines need to internalize the basic truth that every system has something to offer and no system can tackle all the health problems.** Various systems of medicine are complimentary to each other and their complimentarity should be fully utilized in providing a cost effective and comprehensive health care. Statutory bodies charged with the responsibility of regulating the education of various systems of medicine are not likely to take the lead in this direction. Sensitization/orientation modules should be developed by the National Institute of Health and Family Welfare in collaboration with ICMR/CCRAS/CCRUM/CCRH for introduction in under-graduate courses of all systems.

16. Action Plan for States.

Most States have expanded Ayurveda, Siddha, Unani and Homoeopathy infrastructure mostly at primary heath care level in response to locally felt needs and gaps in the existing health care infrastructure. This does not necessarily mean that they have mainstreamed Ayurveda, Siddha, Unani and Homoeopathy in their health care delivery at primary and secondary level. There is a lot of dysfunctionality in the functioning of facilities of various systems at various levels. Functional rigidities are being noticed in most States where there is little coordination between Directorates of Health and AYUSH systems.

Having separate Directorate of AYUSH or even separate Department of AYUSH at State level is not the right approach. There should be functional integration between allopathic and AYUSH systems at the State, District, Sub-district and PHCs level with the single line administration at each level. To begin with, allopathic

doctors can be expected to head Directorate, District, Sub-District and PHC set up with an Addl. Director at the Directorate level and an Addl. CMO at the District level and so on but in due course at all public health administrative positions should be filled on the basis of inter-sa seniority and administrative capability should be the criteria for managerial positions in public health.

Integration of AYUSH with allopathy under single line administration at primary, secondary and tertiary level is crucially important for the purposes of bringing about synergy and of economy.

Conclusion

17. The long term process of mainstreaming of AYUSH has been initiated with remarkable success in the last decade. However, this has been a more or less bottom up State driven initiative in response to felt needs for health care at the District/CHC/PHC level. There is a need to spell out an overarching strategy to ensure that available resources are optimally utilized for achieving national health goals and outcomes. Given due emphasis on safety of drugs, drug standardization, evidence base, quality education infrastructure and strong regulatory systems, AYUSH systems would in due course get public acceptance in India as mainstream systems of health care. The draft approach paper for the 11th Plan rightly accepts the centrality of AYUSH systems for meeting the gaps in the primary health care. It notes "across States 6% to 30% posts of doctors remain vacant and random checks showed that from 29% to 67% doctors were absent. The trained ISM practitioners represent a valuable human resource at village and block levels. This could be leveraged and co-opted into providing primary health care".

Year -2003-2004

Details of specialist Wings/clinics/Centers for which grant-in-aid released under the scheme for AYUSH Hospitals

S.No.	Name of the State/U.T.s	Details of specialist Wings/clinics/Centers for which grant-in-aid released.						Total amount sanctioned.
		ISM & H Wings in district Hospitals @ Rs.35.00 lakhs		**Sp. Therapy Center with indoor facility @ Rs.22.00 lakhs**		Sp. Clinic of ISM & H Specific out door treatment @ Rs.10.00 lakhs		
		No. of Wings	**Amount**	No. of Centers	**Amount**	No. of Clinics	**Amount**	
1.	Andhra Pradesh					**Unani - 1**	**10.00**	**10.00**
2.	Arunachal Pradesh	Ay.-1	30.24			**Hom - 5**	**46.76**	**77.00**
3.	Maharashtra					Ay - 2	19.52	19.52
4.	Manipur	Hom. - 1	35.00					35.00
5.	Meghalaya	Hom.- 7 Ay. - 1	150.78 15.82					166.60
6.	Rajasthan					Hom - 1	10.00	10.00
7.	Tamil Nadu	Siddha - 4	100.00			Siddha - 6	60.00	160.00
8.	West Bengal	Ay.- 4	100.00					100.00
		Ay.- 6 Hom. – 8 Siddha -4	431.84			Ay.- 2 Siddha –6 Unani - 1 Hom. – 6	146.28	578.12

Year 2004-2005

STATE-WISE RELEASE OF FUND TO THE STATES/UTs UNDERCENTRALLY SPONSORED SCHEMES (CSS) Hospital & Dispensaries

Rs. in Lakhs

S.No.	Name of the State/U.T.s	ISM Polyclinic	Specialty Clinics in Allopathic Hospitals	ISM Wing In District Allopathic Hospitals	Supply of Essential Drug for dispensaries	Total
1.	Andhra Pradesh	22.00	100.00		112.25	234.25
2.	Arunachal Pradesh		40.00			40.00
3.	Assam				86.50	86.50
4.	Bihar					
5.	Chhattisgarh	22.00	-	174.32	147.25	343.57
6.	Delhi					
7.	Goa					
8.	Gujarat				146.25	146.25
9.	Haryana	22.00	30.00		59.75	111.75
10.	Himachal Pradesh				202.00	202.00
11.	J & K				100,00	100.00
12.	Jharkhand					
13.	Karnataka	42.50	14.62	70.00	63.50	190.62
14.	Kerala	43.47	07.00			50.47
15.	Madhya Pradesh	22.00		27.68	243,00	292.68
16.	Maharashtra	17.89				17.89
17.	Manipur	44.00				44.00
18.	Meghalaya					
19.	Mizoram			350.00		350.00
20.	Nagaland		9.52	280.00	6.25	295.77
21.	Orissa				123.00	123.00
22.	Punjab				18.75	18.75
23.	Rajasthan				382.00	382.00
24.	Sikkim					
25.	Tamil Nadu		118.00	28.00	60.50	206.50
26.	Tripura			140.00	7.50	147.50
27.	Uttar Pradesh				179.25	179.25
28.	Uttaranchal				134.75	134.75
29.	West Bengal		30.00		65.25	95.25
					2137.75	
	Home Remedy Kit (2nd installment)				**37,14,200**	**37,14,200**
	TOTAL	**235.86**	**349.14**	**1070.00**	**2174,89,200**	**3829,89,200**

Year -2005-2006

Details of specialist Wings/clinics/Centers for which grant-in-aid released under the scheme for AYUSH Hospitals

S. No.	Name of the State/U.T.s	Details of specialist Wings/clinics/Centers for which grant-in-aid released.						Total amount sanctioned.
		ISM & H Wings in district Hospitals @ Rs.35.00 lakhs		**Sp. Therapy Center with indoor facility @ Rs.22.00 lakhs**		Sp. Clinic of ISM & H Specific out door treatment @ Rs.10.00 lakhs		
		No.	**Amount**	**No.**	**Amount**	**No.**	**Amount**	
1	Andhra Pradesh	Ay. - 20	Rs.700.00 lakhs	Ay. & H-1 Y & N. - 1	Rs.44.00 lakhs	Ay - 14 Unani - 8 Hom - 13	Rs.350.00 lakhs	Rs.1094.00 lakhs
2	Assam	ISM &H - 24	Rs.840.00 lakhs	-		-		Rs.840.00 lakhs
3	Chattishgarh	Ay – 10	Rs.350.00 lakhs	Ay – 22	Rs.484.00 lakhs	Ay - 40 Unani - 1 Hom - 1	Rs.420.00 lakhs	Rs.1254.00 lakhs
4	Jammu & Kashmir	Ayurveda/ Unani-14	Rs.490.00 lakhs					Rs.490.00 lakhs
5	Karnataka	Ayurveda- 1	Rs.35.00 lakhs	Ayurveda- 1	Rs.22.00			Rs.57.00 lakhs
6	Kerala			Ayurveda- 2 AYUSH- 1 Hom. - 1	Rs.88.00	Hom. - 1	Rs.10.00 lakhs	Rs.98.00 lakhs
7	Maharashtra			Ayurveda – 3 Y & N - 1	Rs.88.00			Rs.88.00 lakhs
8	Madhya Pradesh	Ayurveda – 8 Homoeo. - 1	Rs.279.37 lakhs					Rs.279.37 lakhs
9	Meghalaya	Ayurveda – 3	Rs.101.30 lakhs					Rs.101.30 lakhs
10	Manipur			Hom. - 1	Rs.10.87			Rs.10.87 lakhs
11	Nagaland	Ayurveda - 3	Rs.105.00 lakhs			Ay - 19 Hom - 50	Rs.690.00 lakhs	Rs.795.00 lakhs
12	Rajasthan	ISM & H – 26	Rs.910.00 lakhs					Rs.910.00 lakhs
13	Sikkim					Amchi - 1	Rs.10.00 lakhs	Rs.10.00 lakhs
14	Tamil Nadu	Ayurveda- 13	Rs.455.00 lakhs			Siddha - 135	Rs.1350.00 lakhs	Rs.1805.00 lakhs
15	West Bengal	Ayurveda – 4	Rs.140.00 lakhs			Hom - 2 Ay. - 18	Rs.200.00 lakhs	Rs.340.00 lakhs
16	Uttaranchal	Hom – 8	Rs.280.00 lakhs			Ayurveda - 1 Y & N - 1 Hom – 7	Rs.90.00 lakhs	Rs.370 lakhs
	Total	ISM & H - 64 Ayurveda – 62 Homoeopathy – 9	Rs.4685.67 lakhs	Ay - 22 AYUSH- 3 Hom - 1	Rs.736.87 lakhs	Ay - 93 Y & N - 1 Siddha - 135 Unani - 9 Hom - 73	Rs.3080.00 lakhs	Rs.8542.54 lakhs

Year - 2005-2006

No. of AYUSH Dispensaries covered under the scheme for AYUSH Dispensaries (Supply of Essential Drugs) (as on 31.3.2006)

Sl. No.	***Name of the State***	***No. of Dispensaries covered***				***Total No. of Disp. covered.***	***Amount released in Rs. (in lakhs)***
		Ay.	***Siddha***	***Unani***	***Homoe***		
1	Andhra Pradesh	550		193	283	1026	256.50
2	**Arunachal Pradesh**	**4**			**37**	**41**	**10.25**
3	Chhatishgarh	632	6		52	690	172.50
4.	Delhi	26				26	6.50
5	**Meghalaya**				**3**	**3**	**0.75**
6.	Himachal Pradesh	1101			4	1105	277.25
7	Kerala	1521	15	2	525	2063	515.75
8	Uttranchal	475			71	546	136.50
9	Maharashtra	490		25		515	128.75
10	Madhya Pradesh				498	498	124.50
11	Meghalaya	Supply of home remedy kits					4.85**
12	Gujarat	640			216	856	214.00
13	Haryana	495				495	123.75
14	J & K	474		235		709	177.25
15	Jharkhand	110		18	42	170	42.50
16	Karnataka	**541**		**51**	**42**	**634**	158.50
17	Nagaland	**64**		**58**	**78**	**200**	50.00
18	Orissa	350			300	650	162.50
19	Rajasthan	685				685	171.25
20	**Sikkim**	**12**			**8**	**20**	**5.00**
21	Tamil Nadu		442			442	110.50
22	Uttar Pradesh	1235		100		1335	333.75
23	West Bengal	280			480	760	190.00
	Total	9685	463	782	2639	13469	3372.60

** Total amount is Rs.4,85,150/-

Annexure 2

Ministry of Health and Family Welfare

Dated the 12th August, 2005

Dear Shri

Subject: Roadmap for Mainstreaming of AYUSH under NRHM

Mainstreaming of AYUSH (Ayurveda, Yoga & Naturopathy, Unani, Siddha & Homoeopathy) is an important strategic intervention under the National Rural Health Mission (NRHM). The objective of the integration of AYUSH in the health care infrastructure is to reinforce the existing public health care delivery system, with the use of natural, safe and friendly remedies, which are time tested, accessible and affordable. The Indian Systems of Medicine have age old acceptance in the communities in Indian and in most places they form the first line of action in case of the common ailments. No initiative which seeks to provide cost-effective health care to the rural communities can ignore the vast local knowledge base available in India in the form of the Indian Systems of Medicines.

Mainstreaming of AYUSH under NRHM was discussed in a series of meetings jointly held by both Departments. It is proposed that the following steps for appropriate utilization of AYUSH at the various level of health care set up be considered for implementation as part of the NRHM:

A. : Integration of AYUSH in the Health Care infrastructure

1. All Primary Health Centres (PHCs) ought have an AYUSH doctor. If space permits, the AYUSH dispensary may be relocated in the existing building of the PHC. In places where the AYUSH infrastructure is good, the feasibility of shifting the PHC to the same building be examined. Although there could be constraints in the availability of spaces, at lease 10% of the PHCs with adequate space could accommodate AYUSH dispensaries. Action to shift the AYUSH dispensaries to such PHCs may be taken on priority during the first year of the mission period.

2. Where relocation of AYUSH practitioners is not feasible due to lack of AYUSH dispensaries, qualified AYUSH practitioners may be hired on contractual basis and funds for which would be provided from NRHM budget.
3. The guidelines for IPHS for CHCs, which have been disseminated to the states are being updated so as to adequately address the parameters applicable to the AYUSH component also. Once the guidelines are received, priority should be given for upgradation of AYUSH facilities to those standards.
4. While constructing new PHCs as per IPHS, adequate space should be provided for locating the AYUSH dispensary within the same premises.

B. : Integration of AYUSH with ASHA

1. The Accredited Social Health Activist (ASHA) is the main pillar of the NRHM and is to provide the first response of the Public Health Care chain to any illness at the village level. The first training module for ASHA includes the ASHA component as well. The in-service training modules for ANMs and MOs are also being updated to incorporate information on AYUSH.
2. As of now the ASHA drug kit would contain only one AYUSH preparation in the form of the iron supplement. However, the drug list could be expended in due course to include more AYUSH medicines. Suggestions in this regard are invited from the State Governments.

C. : Other initiatives

1. As of now, the Sub-Centres are no manned by qualified medical doctors. Suggestions have been received about making available and AYUSH practitioner at the Sub-Centre level at least on part-time basis. The feasibility of this proposal should be examined by the State Government.
2. The guidelines to include AYUSH practitioner at all levels in the NRHM

including the State Health Mission, District Health Mission and Rogi Kalyan Samitis have been issued earlier. The action in this regard should be expedited.

3. It is intended to provide for flow of funds under the relevant Centrally Sponsored Schemes for the Department of AYUSH through District Health Societies for convergence at the District level under NRHM. Chief District Medical Officer would be the over-all coordinator of AYUSH related initiatives under the NRHM at the District level.

It is proposed to have total functional integration between the AYUSH dispensaries / hospitals and the health care facilities under the allopathic system so that the entire spectrum of treatments is made available to the rural poor at affordable costs. The enthusiastic participation of the states in this initiative is imperative for the success of the NRHM. We would, therefore, request you to ensure that the AYUSH component of NRHM is adequately addressed at the grass root level. We solicit you whole hearted cooperation in the matter.

(PRASANNA HOTA)
Secretary (Health and Family Welfare)

(UMA PILLAI)
Secretary (AYUSH)

Annexure 3

LEGAL POSITION REGARDING PRESCRIBING MODERN MEDICINE BY AYUSH PHYSICIANS

- "IMCC Act 1970 Sec.2 (1) e, which states that the Indian Medicine means the system of Indian Medicine commonly known as Ashtang Ayurved, Siddha or Unani Tibbia whether supplemented or not by such modern advances as the Central Council may declare by notification from time to time". Under this provision the CCIM vide the Resolution of its Executive Committee dated 30-08-1996 and a Press Note released on the same date and Notifications No. 8-5/96-Ay(MM) dated 30-10-1996, No. 8-5/2002-Ay(MM) dated 22-11-2004 and No. 28-5/2004-Ay(MM) dated 19-05-2004 supports that the institutionally qualified ISM doctors are authorized to practice allopathic medicine by virtue of their teaching and training in modern scientific system of medicine.

- The provision of IMCC Act under Sec.17 (3) (b) that the privileges (including the right to practice any system of medicine) conferred by or under any law relating to registration of practitioners of Indian Medicine for the time being in force in any State on a practitioner of Indian Medicine enrolled on a State Register of Indian Medicine. Accordingly the Supreme Court in Dr. Mukhthiar Chand & Others Vs The State of Punjab & Others No. AIR 1999, SC 468, dated 8-10-1998 declared that an Ayurvedic practitioner of a State is eligible to practice/use modern medicine if the State Act, under which he is registered, allows for the same. The provision to allow practitioners of ISM to practice allopathic medicine was allowed by the State of Punjab vide The Punjab Ayurvedic and Unani Practitioners Act 1963 and the State of Maharashtra by The Maharashtra Medical Practitioners Act 1961 and the Maharashtra Medical Education & Drugs Department by two Government Notifications dated 25-11-1992 and dated 23-2-1999, the latter for the purpose of the Sub-clause (iii) clause (ee) of rule 2 of the Drugs and Cosmetics Act, 1940 (23 of 1940).

- The Hon'ble Supreme Court of India in its decision in Subhash Bakshi and State of West Bengal in January 2003 has stated 'while recognizing the rights of Vaids and Hakims to prescribe allopathic medicines this court also took into account of the fact that qualified allopathic doctors were not available in rural areas and the persons like Vaids/Hakims are catering to the medical need of residence in such areas. Hence, the provision which allows them to practice modern medicine was found in public interest'.