

COUNTRY MONOGRAPHS ON TRADITIONAL SYSTEM OF MEDICINE

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Forward

Promotion of health status in developing countries like Nepal is unthinkable and unbelievable without developing existing traditional medical systems (TRM). Every system has its own beauty, a typical concept, principle and philosophy. However, all systems use mostly plant resources, minerals and animal parts. Nepal is rich in both traditional medical knowledge as well as natural resources. So this country has a future. Effective policy and planning on TRM not only promote the health status of the people but also uplift the economic status of the citizens.

I am glad to get opportunity to prepare this document for WHO. I do hope my endeavor to provide as much as possible data and information may be highly useful for the organization to design new strategies. Existing situation of traditional medical systems is given precisely and concisely with analysis based on evidence.

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Comment and suggestion from the organizational as well as from individual level are always welcome.

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Acronyms

AAHW	: Auxiliary Ayurveda Health Worker
AHW	: Ayurveda Health Worker
AHW	: Ayurveda Health Worker
AD	: Ayurveda Dispensaries
BAMS	: Bachelor of Ayurveda Medicine and Surgery
BHMS	: Bachelor of Homeopathy Medicine and Surgery
BMS	: Bachelor in Medicine and Surgery
BS	: Bikram Sambat (Era)
BUMS	: Bachelor of Unani Medicine and Surgery
CBD	: Convention of Biological Diversity
CCIM	: Central Council for Indian System of Medicine
CTEVT	: Council for Technical Education and Vocational Training
DAHC	: District Ayurveda Health Center
DDA	: Department of Drug Administration
DHMS	: Diploma in Homeopathy Medicine and Surgery
DMS	: Diploma in Medical Surgery
DoA	: Department of Ayurveda
ENT	: Ear, Nose and Throat
HAA	: Himalayan Amchi Association
IoM	: Institute of Medicine
IPR	: Intellectual Property Rights
LDCs	: Least Developed Countries
MoHP	: Ministry of Health and Population
NAH	: Naradevi Ayurveda Hospital
NAHP	: National Ayurveda Health Policy
NAMC	: Nepal Ayurvedic Medical Council
NHPC	: Nepal Health Professional Council
NHRC	: Nepal Health Research Council
NHRP	: Nepal Health Research Policy
NSU	: Nepal Sanskrit University
RAH	: Regional Ayurveda Hospital
SAARC	: South Asian Association of Regional Cooperation
SAWTEE	: South Asia Watch on Trade, Economic & Environment
SDVKVC	: Singh Durbar Vaidya Khana Vikas Committee
SLC	: School Leaving Certificate
TCM	: Traditional Chinese medicine
TMK	: Traditional Medical Knowledge
TRIPS	: Trade Related Aspects of Intellectual Property Rights
TRM	: Traditional Medicine
TU	: Tribhuvan University
WHO	: World Health Organization
WTO	: World Trade Organization
ZAD	: Zonal Ayurveda Dispensary

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Country Monographs on Traditional System of Medicine

1. Introduction

Traditional medicine in Nepal has strong cultural and religious background. It exists in different ways such as ethnic or tribal group, ritual or ceremonial practices, spiritual practices, diet or self-healing practices. Indigenous and local communities have been using traditional and indigenous knowledge for centuries under local laws, customs and traditions. [1]

Traditional medicine practitioners in Nepal can be studied categorically in different groups. First, traditional healers: their indigenous knowledge, recipes and technology that have been transferring from generations. They are the major contributors in health service in Nepal. People have belief on their knowledge and faith on their formulations. These knowledge and formulations are mostly Ayurveda based. It is the most reliable, easy to access, affordable and comparatively more effective system if the formulations are followed sincerely.

People who are neither traditional healer nor have academic background on medicine but, they practice traditional medicine in the community referring the Ayurveda and other available classical texts. Similarly, Amchi, who are working in the northern part of the country and their knowledge and formulations are to some extent Tibetan medicine based. Likewise, Yogic culture, healing practices in cultural, social, religious functions and ceremonies, and the teachings and practices of traditional healers also exists.

Another group of the practitioners are those who are trained in educational institutions recognized by the state. The number of trained Ayurveda and other practitioners are significantly increasing in recent years but are still not enough to fulfill the national requirement. Ayurveda is well systemized, managed, regulated, planned and to some extent developed in comparison with other systems of traditional medicine.

Rest of the systems of traditional medicine – homeopathy, unani, acupuncture etc - are not based on Nepali culture, religion, society and living behavior, however, widely practiced in recent years and the country has recognized.

Ayurveda Education

The first educational institution in medicine in Nepal was *Ayurveda Vidyalaya* established in 1993 BS (1936 AD). Earlier than education in Ayurveda was *Gurukul* system. Ayurveda practitioners, mostly educated in India were the teachers. They used to be involved in treatment as well as teaching Ayurveda science directly associating with the local people. These teachers were respected as *Rajguru*. *Vaidyavinod*, *Vaidybhushan* and *Vaidyaratna* were the two-year degree offered at that time. Selected students used to be sent India for further education. [2]

In 1952, curriculum was changed and three levels - *Ayurveda Madhyama*, *Ayurveda Shastri* and *Ayurvedacharya* were designed and started in Nepal. From 1972, certificate

level education in Ayurveda was begun in Tribhuvan University. Bachelor of Ayurveda Medicine and Surgery (BAMS) course was started from 1987 but interrupted after three years for nearly eight years. The bachelor course was restarted from 1997 which is continuing till the date. In present days, certificate level education and training programs are running by Nepal Sanskrit University (NSU) and Council for Technical Education and Vocational Trainings respectively (CTEVET). [2]

Ayurveda Health Services

Numbers of *Ayurveda Ausadhalaya* (dispensaries) were established in district level from 1916 AD. In the meantime a hospital also established in Kathmandu. The first health service center in Nepal is Ayurveda hospital. Earlier than 1950, 47 dispensaries throughout the country and 1 hospital in Kathmandu were operating. 14 zonal Ayurveda Ausadhalaya were established in 1962. Ayurveda services were brought under the Ministry of Health from 1956. District Ayurveda Health Center has been establishing since 1993. [2] Currently 214 dispensaries, 61 District Ayurveda Health Centers, 14 Zonal Ayurveda Ausadhalaya, 1 regional hospital, 1 central level hospital are functioning under government set-up in Ayurveda service sector. [3]

Ayurveda drug production

Clinical level production of Ayurveda drugs was begun with the history of Ayurveda practice since the time immemorial. Singh Durbar Vaidya Khana was the first Ayurveda drug manufacturing industry in Nepal. Vaidya Khana is the historical souvenir of Nepal. It was established during *Malla* dynasty by the rulers for the rulers. It has a marvelous history of nearly 350 year in manufacturing Ayurvedic drugs using Himalayan herbs. By the end of autocratic *Rana* regime in 1950, Vaidya Khana products were distributed for the people but ordinary people were benefited only when it begun free distribution of the products through Ayurveda Ausadhalaya (Ayurvedic dispensaries) from earliest sixties throughout the country. [4]

In 1995 Singh Durbar Vaidya Khana was transformed as development committee. At present days, it produces nearly 160 types of drugs using 400 types of herbs, minerals and animal parts¹. The most appreciable fact is that, this company follows the principle of Ayurveda. Quality of drugs, production and distribution are improving gradually as the company flourished with modern technology and equipments in recent years. Besides this, 20 private companies are functioning² in Ayurveda medicine production. [5]

Organizational structure in Ayurveda [6]

- Management and regularity sector
 - *Department of Ayurveda*: Department of Ayurveda has been functioning from 1981 under the Ministry of Health.
 - Ayurveda and Alternative Medicine Sector in MoH
 - Ayurveda Units in Regional Health Directorates
 - Nepal Ayurveda Medical Council

¹ Information given by the Production Officer of SDVK during interview

² Current data given by DoA shows there are 33 private companies, but DDA 2006 bulletin shows 20

- Service Sectors
 - 100 bedded Central Ayurveda Hospital
 - 30 bedded Regional Ayurveda Hospital
 - 14 ZADs and 61 DAHCs
 - 214 Ayurveda dispensaries in 75 districts
- Drug Production sector
 - Singha Durbar Vaidya Khana
 - Five rural pharmacies in different regions
 - Two production units in central and regional hospitals each
 - Ten production units with ZAD/DAHCs
- Educational sector
 - BAMS (graduation level) in TU
 - Certificate level and training under Nepal Sanskrit University and Council for Technical Education and Vocational Training respectively
- Regularity sector
 - Nepal Ayurvedic Medical Council (NAMC)
 - Nepal Health Professional Council (NHPC)

Other systems of medicine

History of other traditional medicine systems (except Ayurveda and indigenous knowledge practices) in Nepal is comparatively new. Practices of homeopathy, naturopathy, Unani, Amchi, Acupuncture/ acupressure etc has been remarkably growing in recent years but yet to be organized, managed, systematized and regulated properly. Educational institutions and training centers are seldom available. Majority of the practitioners are educated in India. Drugs production is either limited within clinical production (prepared by the practitioners) or imported from India. Research and development, policy, planning, allocation of national resources, rules and regulation and educational set up are the fundamental steps that these all systems are still in need.

These practitioners are registered in Nepal Health Professional Council. Decisions over any issues are being made by the government through Ayurveda and Alternative medicine Section in MoH. There is no exaggeration in saying that the situation of traditional medical systems, especially except Ayurveda is still in confusions and dilemma.

2. Concept, Principle and Practices of country specific TRM

Ayurveda

The root of Ayurveda dates back to the *Vedic* period. *Vedas* are the oldest recorded documents of Ayurveda, the life science, is also the oldest authentically recorded science in existence today.

Charaka Samhita, the pre-historic document of Ayurveda states that the first international Ayurveda congress was held on the lap of the Himalayas in the presence of fifty-two eminent scholars, Rishi and experts that gathered there and performed meditation, afterwards discussing, developing and documenting this science. Therefore,

the Himalayan region receives recognition and praise for its highest knowledge, aspiration, purity, and harmony of life. This region is also the source of many highly valued medicinal plants. [7]

In Sanskrit, *ayurveda* means “science of life”. Ayurvedic philosophy is attached to sacred texts, the Vedas, and based on the theory of Panchmahabhutas — all objects and living bodies are composed of the five basic elements: *Prithvi, Jala, Agni, Vayu* and *Akash* (earth, water, fire, air and space elements respectively). Life is considered as an evolving entity, a constant dynamic, ever transforming, and unified cohesiveness. The underlying pervasive source is the consciousness. So, fundamentally life is a conscious entity and relative harmony is called health and disharmony is known as disorder or manifest as a disease.

Similarly, there is a fundamental harmony between the environment and individuals, which is perceived as a macrocosm and microcosm relationship. As such, acting on one influences the other. Whole system attempts to harmonize self every moment, so, it considers that every one has got a healing potential source or wisdom.

Ayurveda is not only a system of medicine, but also a way of living. It is used not only to prevent and cure diseases but also to promote health and longevity. Ayurvedic medicine includes mainly herbal medicines, life style, daily routines, dietetic regimen etc. It is widely practised in South Asia, especially in Bangladesh, India, Nepal, Pakistan, and Sri Lanka. [8]

Ayurveda is an ancient art of healing or medicine. This knowledge of Ayurveda can be found in a number of manuscripts, books, healing practices, in cultural functions and ceremonies, and the teachings and practices of traditional healers. In fact, the practice of Ayurveda is essentially a culturally based health system. Furthermore, it was a way of life for the community, and its educational value was highly regarded.

The objective of Ayurveda is to achieve the highest goal of life, the inner and outer dynamic harmony. The dimensions of health are defined as bodily, sensorial, mental, and spiritual health. All measures such as daily routines, life style, food, herbs, treatments, and other guidelines are used to achieve a state of total health and a quality of life that is productive and free from disease.

Homeopathy

Homeopathy was first mentioned by Hippocrates (462–377 BC), but it was a German physician, Hahnemann (1755–1843), who established homeopathy’s basic principles: law of similarity, direction of cure, principle of single remedy, the theory of minimum diluted dose, and the theory of chronic disease. In homeopathy, diseases are treated with remedies that in a healthy person would produce symptoms similar to those of the disease. Rather than fighting the disease directly, medicines are intended to stimulate the body to fight the disease. By the latter half of the 19th century, homeopathy was practised

throughout Europe as well as in Asia and North America. Homeopathy has been integrated into the national health care systems of many countries, including India, Mexico, Pakistan, Sri Lanka, and the United Kingdom. [8]

Unani

Unani is based on Hippocrates' (462–377 BC) theory of the four bodily humours: blood, phlegm, yellow bile, and black bile. Galen (131–210 AD), Rhazes (850–925 AD), and Avicenna (980–1037 AD) heavily influenced unani's foundation and formed its structure. Unani draws from the traditional systems of medicine of China, Egypt, India, Iraq, Persia, and the Syrian Arab Republic. It is also called Arabic medicine. [8]

Unani service is available in Nepal since 1990 BS (1933 AD). A Unani dispensary is located in the complex of Homeopathy hospital in Lalitpur. This system lacks manpower, national resources, education, training, research and development and clear national policy and planning. More than twelve to thirteen thousand local people every year visit the Unani dispensary, which is running in just two rooms.

Naturopathy

In Naturopathy it is believed that health and diseases are basically functional harmony and disharmony of body and mind. So, natural way of cleansing and detoxifying and natural rhythm is important.

A *Task Force* was formed by the Ministry of Health as per the National Health Policy-049 (BS), which submitted the report with recommendation in 1995. Another body was formed to study and evaluate the report anticipating logical suggest recommendation. Yoga and Naturopathy Medicine Committee was formed with the initiation of MoH but the activities were limited within seminars and workshops. Finally, nation recognized this system of medicine in 2000. [9]

There are two hospitals and few dispensaries in private sector but only a unit has been started in central Ayurveda hospital since the beginning of 2006. [9]

Amchi

Amchi is the Tibetan medicine based indigenous medical knowledge that has been practicing in northern Himalayan part of Nepal since ancient time. Amchi are providing their services for local people by utilizing locally available medicinal plants. Their contribution is remarkable; however the country has not formally recognized yet. Amchi practitioners have been associating themselves and formed an association – Himalayan Amchi Association. They have school and training centres where *Amchi* is taught and graded with a system established by their association [10]. The number of Amchi clinics in Kathmandu, Pokhara, and other part of the country is more than twenty. But all those teaching-learning institutions and clinics are run without formal registration and recognition by the government sector.

Acupuncture/Acupressure

The history of Acupuncture/Acupressure is just about 20-22 year old. This Traditional Chinese medicine (TCM) based therapy is officially recognized and functioning in Ayurveda hospital at Naradevi. Official practitioners in the state-run organizations are studied in China. [11]

This system of medicine doesn't apply advanced tools and equipments. They are easily portable. Countries like Nepal which have various geographical difficulties could be beneficiaries of this traditional medical system.

Yoga

The word Yoga is derived from Sanskrit meaning "to unite" or "to integrate". This union refers to the union of *jeevatma* (individual consciousness) with *paramatma* (divine consciousness). This is also interpreted as the integration of physical, mental, intellectual and spiritual aspects of human philosophy, and also as the adjustment or harmony of an individual with his/her environment or society.

Fundamentally Yoga is four types Raja Yoga, Bhakti Yoga, Karma Yoga and Jyana Yoga. Raja Yoga is mostly practiced and consist of the following eight-folds known as *Asthanga- yam, niyama* (two ethical practices), *Asana* (physical practices), *Pranayama* (vital or breathing practices), *Pratyahara* (sensorial practices), *Dharana, Dhyana* (meditative practices) and *Samadhi* (final sage or actual union). [12]

In this Himalayan country, Yoga was practiced by the great *Rishis, Maharshis* or saints since very beginning, but the formal or institutional teaching system has yet to be established. There are only a few centres of Yoga in the country.

In the present times, Yoga is also proving more useful as the means of positive health and prevention or cure of diseases. In these days, Yoga has grown extensively popular and people are attracted with the following aspirations.

- For promotion of positive health
- For prevention of diseases
- As a therapy for treatment of diseases
- For developing supernatural powers
- For expansion of consciousness
- For liberation or *Moksha*

3. National Policy on TRM

National Ayurveda Health Policy - 052 (BS) is considered as a major achievement after decade's long effort to systemize Ayurveda medicine in Nepal³. It was reviewed in 2001 (2058 BS). Much has been anticipated from the policy for the sake of Ayurveda development.

³ See appendix – 6 for detail

However situation of other traditional medicine systems *e.g.* naturopathy, homeopathy, acupuncture, acupressure, unani, amchi etc are still in dilemma. Clear policy, planning, rules and regulation, inter-sectoral networks etc are yet to be developed. Nation has recognized these systems but overall development of traditional medical systems has been hindering due to lack of initiation and enthusiasm of concerned authorities.

The 6th Five-year-plan (1976) mentions Ayurveda in only one sentence".....to study the effectiveness of Ayurvedic drugs, increase its production and to utilize Ayurvedic manpower in preventive and family planning activities." In the 7th plan, integration of TRM and bio-medicine was emphasized. In the 8th plan, separation of systems was promoted in order to protect the integrity of TRM concepts.

3.1 Process of policy formation

Government formed an Ayurveda Development Committee to promulgate its National Ayurveda Health Policy for systematic development of this sector in 1995. The committee precisely formulated the policy within a given period by consulting all the concerned persons, institutions, authorities and fulfilled all the formalities and finally submitted to the government. The then government of Nepal principally agreed the "*Rastriya Ayurveda Swasthya Niti- 2052*" (National Ayurveda Health Policy-1996) on the date 2052/11/14 BS (26 Feb 1996) and decided to implement. Immediately within one week, the policy document was sent to Department of Ayurveda through the MoH for implementation by following the required formalities and coordinating with the concerned bodies/authorities.

Same process has been undergoing for policy making for other traditional systems. An umbrella organization is expecting to be formed soon in future to regulate, manage, systemize and operate rests of the existing TRM which are recognized by the country.

3.2 Policy document

For preservation, promotion, utilization and development of Ayurveda science as well as its resources, National Ayurveda Health Policy was promulgated in 1996. It is believed that proper implementation of AHP-'96 would result remarkable development of Ayurveda in Nepal⁴.

Policy documents for the sake of other traditional medical system -Homeopathy, Unani, Naturopathy, Acupuncture /Acupressure, Amchi etc- are undergoing.

3.3 Policy Implementation

Some of the significant development in Ayurveda after policy formulation are formation of Singh Durbar Vaidya Khana Development Committee, Naradevi Ayurveda hospital Development Committee, restarting BAMS course in the only Ayurveda College of TU under IoM, establishment of Nepal Ayurveda Medical Council as an apical and autonomous regularity body, expansion of indoor facilities and hospital beds in the

⁴ See appendix -6 for detail

hospitals, extension of District Ayurveda Health Centers and dispensaries, design and publish various guidelines and parameters⁵ etc.

Albeit Ayurveda Health Policy-052 is considered as a milestone for the development of Ayurveda, anticipated achievements have not been noticed even within more than a decade of promulgating. Situation has been remaining almost stagnant especially in human resource development and management and research and development sectors. Commercial cultivation of medicinal plants, development of herbal garden, production of drugs at local-level, post graduation education, inter-sectoral cooperation and resource mobilizations, effective monitoring and evaluation etc are not improving satisfactorily.

3.4 Role of traditional medicine/Integration into national health system

Like in other developing countries more than 80% Nepali depends on the traditional medicine. Ayurveda based as well as other indigenous healing practices existing in various communities, ethnic groups that have been transferring generation to generations has been playing vital role. Department of Ayurveda has been providing services through nearly 291 health services centers. Every kinds of traditional medicine are access to most of the parts of the country and their contribution cannot be underestimated. Comparatively Ayurveda has wide coverage.

All medical systems are under the same Ministry with same or similar organizational apparatus and mechanism. In this sense traditional medicines in Nepal are partially integrated. Administrative activities are integrated and clinical activities are continuing with own principle and philosophy. Rules and regulations for registration, production, distribution, research activities, drugs management, export/import etc are almost similar and managed by the same section of the ministry although bio-medical and Ayurveda has more specialized systems than other traditional medicine systems. Country has recognized most of the existing traditional medical systems and also realized that coordination and integration is a must. Only the questions and debates are about the mode of integration.

4. Legislation

4.1 Registration of TRM Practitioners

Nepal Ayurveda Medical Council (NAMC) is an autonomous body for the registration of Ayurveda practitioner- either institutionally trained or traditional healers. Practitioners of other traditional medicinal systems have to be registered in Nepal Health Professionals Council (NHPC), which also registers bio-medical paramedical and non-clinic medical professionals. Before the NAMC operating, NHPC was only the institution to register all kinds of traditional medicine practitioner including Ayurveda practitioners.

⁵ A. Operational Guidelines for Strengthening Ayurveda Medical System B. Service Standards and Operational Guidelines for Ayurveda Hospital 2005. C. Service Standards and Operational Guidelines for Ayurveda Institutions 2005. D. Essential Ayurveda Drug List (third revision) 2005. E. Treatment protocols (for different level institutions) 2005. F. Guidelines on infrastructure and parameters for production of quality Ayurvedic medicines in Ayurveda Institutions 2006.

Registration in NAMC

Nepal Ayurveda Medical Council (NAMC) has the following types of registration provisions.

1. *Permanent registration*: Applicable for only Nepali Ayurveda practitioners trained from any Nepali or foreign academic institutions (recognized by NAMC). Registration must be renewed by every 5 years.
2. *Temporary registration*: This is especially for intern students (those who have completed 4.5-year course and should do practice in hospital for the fulfillment of the academic degree- BAMS) of Ayurveda College (TU) of Nepal. This is valid for one year.
3. *Specialty registration*: Nepali citizen post-graduated (MD/MS in Ayurveda) in Ayurveda from recognized university are eligible for this type of registration. It must be renewed by every 5 year.
4. *Limit registration*: This registration provision is for non-Nepali Ayurveda physicians who are working in Nepal associating with hospitals or educational institutions. This type of registration is valid for one year and renewable on recommendation of the organization that the applicant associated. [13]

Only the graduated and post graduated physicians studied in other countries are recognized by the council. Paramedical are not recognized. [13]

NAMC has categorized the Ayurveda practitioners (academic) into the following two groups

1. First level: Graduated and post-graduation in Ayurveda are categorized as first level
2. Second level: Certificate level or equivalent to certificate level (at least two and half year training) and training (at least one and half year training after SLC) are categorized as second level [13]

The executive committee has sole authority to make decision on registration, cancellation of registration, re-registration, suspension and any other decisions. Registration process is comparatively comfortable for domestic students than foreign-certificate holders. Council directly consults with the concerned university/college to verify the certificates and also verify whether the college / university are recognized by the home country.

Provision for traditional healers

Traditional healers also should be registered in NAMC to legalize their practices of their indigenous knowledge and formulary. NAMC has fixed certain requirements and deadline for registration. Decision on what kinds of common ailments is permitted for treatment is made after possible investigation of individual background by the committee members of the council. The names of the diseases allowed for treatment are mentioned

in the certificate offered by the council. The deadline of the application for the registration was almost end of 2058 (March 2001). [13]

Current status of Ayurveda practitioners

SN	Level	Registered	Remarks
1	Post-graduation (MD)	21	In eight different subjects till the date
2	BAMS or equivalent	244	Graduation (studied in Nepal or India)
3	Ayurveda Health Assistant	803	Certificate level or equivalent
4	Auxiliary Ayurveda Health Worker	325	SLC + 15-month trainings
5	Traditional healer ⁶	19	Having no background in medicine

Source: NAMC/Date-30 Aug 07

Other practitioners

Other traditional medical practitioners are registered in Nepal Health Professional Council (NHPC) since separate councils for each system has not established yet. Process of the registration in NHPC is almost similar to the system Nepal Ayurvedic Medical Council.

Current status of traditional medicine practitioners registered in NHPC

SN	Subjects	Level ⁷					
		First		Second		Third	
		Temp	Perm	Temp	Perm	Temp	Perm
1.	Ayurveda ⁸	-	6	7	182	28	900
2.	Homeopathy	1	29	-	10	-	-
3.	Unani	1	9	-	-	-	-
4.	Acupuncture	1	4	1	1	-	1
5.	Naturopathy	2	3	-	-	3	1
6.	Yoga	-	3	-	-	-	1
7.	Amchi	-	-	-	-	-	-

SN	System of Medicine	Total	Remarks
1	Ayurveda	1123	<i>Including all levels</i>
2	Homeopathy	40	<i>Only first and second level</i>
3	Unani	10	<i>Only first level</i>
4	Acupuncture	8	<i>Including all levels</i>
5	Naturopathy	6	<i>Only first and third level</i>
6	Yoga	4	<i>Only first and third level</i>
7	Total registered TRM	1191	<i>All</i>

Source: NHPC/Date of collection: 20th Aug 2007

⁶ Authentic data on traditional healer in the country is not available. Estimated number is 400000. Number of Ayurveda based traditional healer in Kathmandu Valley is around 12000 [14]

⁷ First level: post-graduated and graduated Officers, second level: certificate level, and third level: more than 15 month long training completed government employees

⁸ Ayurveda practitioners were also used to be registered in NHPC before NAMC established.

Registered Educational Institutions in Nepal under NAMC

SN	Level	Institution	Seat	Remarks
1	Post-graduation (MD)	-	-	Not available in Nepal
2	Graduation	1	15	Running by TU
3	Ayurveda Health Assistant	7	40	Running/affiliated with NSU
4	Ayurveda Health Worker	3	40	Running/affiliated with CTEVT

There are about 154 Amchi practitioners registered under Himalayan Amchi Association (HAA) in Nepal⁹. [15]

4.2 Rights and privilege of TRM practitioners

Registered practitioners can practice traditional medicine freely in the country associating with state-owned organizations, private hospitals, and Ayurvedic drug industries, educational institutions or can conduct private clinic [13]. Listed traditional healers who have been practicing TRM as family professions from generations can also practice and prescribe drugs that they prepared with their own formulations as mentioned in the certificate provided by the council. But still there are large numbers of traditional healer not registered in NAMC are in practice throughout the country.

4.3 Registration of TRM medicine

Herbal medicines have to be registered by the Department of Drug Administration. Regularity requirements are: manufacturing license issued by the concerned Drug Control Authority, price approval and valid price list, letter of warranty of the manufacturer indicating his/her responsibility for safety, efficacy and quality of his products, authorization for import, export and distribution of the product, and the mode of distribution and promotion. Pharmaceutical requirements are the quantitative formula including all excipients, stability data, shelf-life, bio-availability, in vitro and in vivo, wherever applicable, a description of the product including container and labeling, and a photograph of each product. For medicinal plants, permission is given by the Department of Forests for collection of raw herbs. [16]

4.4 Quality assurance of TRM medicine

Legal provisions for quality assurance of traditional medicine in Nepal has developed but not followed effectively. Both the department of Ayurveda and department of drug administration lack the facilities for quality test which has been felt urgently needed in these days. Singh Durbar Vaidya Khana has established a laboratory but can conduct minimal tests.

4.5 Traditional medicine pharmacopoeia

Development of traditional medicine pharmacopoeia is prescribed in the National Ayurveda Health Policy-052 but yet to be developed. Current production is mainly based on the classical pharmacopoeias which are available in classical Ayurveda texts. Singh

⁹ Source: Himalayan Amchi Medical System - prepared by HAA with the funding support of WHO in December 2004

Durbar Vaidya Khana – the state-owned manufacturing company of Ayurveda drugs - has developed a *Tarakiv* (its own pharmacopoeia) since the date of establishment.

4.6 TRM formulary¹⁰

Department of Ayurveda has developed a traditional medical formulary compiling and editing various classical texts to make more applicable and practicable in country context. First part was published in 2004 with the details of 56 *churna* and 69 *vati* formulations. Second part was published in 2005 with details of 40 *bhasma* and *pisti* formulations. [17]

This formulary incorporates the information about

- name of the medicine and reference
- composition
- method of preparation
- indications/uses
- dose, vehicles and methods of use
- precaution/ or contra-indications, if any

4.7 Essential traditional medicine list if any and process of development¹¹

Department of Ayurveda has developed a list of essential Ayurveda drugs list and published a booklet in 2005 after third time revised. Name and formulations of the drugs to prescribe from different level of health service organizations (hospitals, zonal/district level health centers and dispensaries) are included in this book. It was developed in WHO financial support. [18]

5 Availability of TRM medicine in country

Singh Durbar Vaidya Khana (SDVK) is the oldest and largest company to produce Ayurvedic drugs in country context. Ayurveda based manufacturing companies from private sector are also growing satisfactorily in recent years. However, inspite of availability if almost all raw materials in the country, only about 15% national requirements (based on market demand) is fulfilled by the national industries. Remaining major portion of the demand has been fulfilled by the Indian companies.

Department of Ayurveda (DoA) distributes Ayurveda drugs of approximately twenty-three millions¹² NRS (343000US\$) through the Zonal/District Ayurveda Health Centers and dispensaries. Nearly 80% of this requirement is supplied by SDVK and remaining by either Nepali or Indian private sector.

5.1 Production

Principle objective of the National Ayurveda Health Policy-1996 is to improve health condition of mass people and make then self-reliant on health service by officially and utmost utilizing local medicinal herbs and medical entities which are easily available and can be used consistently

¹⁰ See appendix - 5

¹¹ See appendix - 4

¹² Investment of DoA on drugs/other first aid materials was nearly 23300000 NRS in 2006. Source-DoA

Production of Ayurvedic drugs in Nepal categorized based on the mode of their production: clinical production by the locally available traditional for their patients and industrial production by registered companies either for domestic markets or for international markets or both.

Permission from Department of Ayurveda is a must for production of Ayurvedic drugs. Direct involvement of registered Ayurveda practitioners is mandatory. Department of Ayurveda issues production license consulting with Nepal Ayurvedic Medical Council if needed. Ayurvedic drugs can be produced are listed in gazette. Production without permission from Department of Ayurveda and other drugs than listed in the gazette are punishable. However, limited numbers of formulations are being published by the DoA.

As per the provision of Nepal Ayurvedic Medical Council (NAMC), Department of Ayurveda has sole authority to regulate production of Ayurveda drugs but it is yet to be implemented. Even now, Department of Drug Administration is operating for the regulation of the Ayurveda drugs.

Besides Ayurveda, the other traditional medical systems have also particular formulation for making drugs using herbs, minerals etc, but limited within clinical production. Significant amount of drugs is imported from India. Industrial level of production in traditional medicines except in Ayurveda has not developed and required drugs are imported. Effective measures are yet to be developed for quality production.

Manufacturing industries and production of herbal drugs based on Ayurveda formulations are gradually developing in Nepal, especially from profit making private sectors as demand of natural products in global markets tremendously increasing in recent years. Companies establish with an anticipation of capturing potential markets in global world but cannot function properly when they failed to meet the international standard to penetrate internal markets. Quality status of local products is the major obstacle to function properly. So the number of manufacturing company from private sector is unpredictable. Currently, 20 private companies are functioning in Ayurveda¹³. Basically, most of these companies are not par the minimum standards prescribed by the DDA.

Rural pharmacy

Rural pharmacies and production units are functioning in different 10 ZAD/DAHCs. Only machines are distributed to those pharmacies to prepare single drugs or medicines using locally available herbs and minerals. But, trained human resources, space, physical facilities and other infrastructures are yet to be provided.

5.2 Storage

Drugs are stored in the Department of Ayurveda temporarily. Manufacturing companies deliver the drugs to the office and DoA distributes to its health centers as soon as possible. But, obviously in the health centers, drugs are must to be stored for longer. Herbal drugs are easily damaged by temperature, space and various conditions. Store management in the zonal/district health centers and dispensaries is still traditional. In

¹³ Department of Drug Administration 2006

most of the centers, due to lack of space, infrastructure, and sometimes due to lack of awareness and sincerity, drugs are simply kept in paper-made boxes or wooden racks.

5.3 Distribution

Ayurveda drugs are distributed by the state through hospitals, Zonal/District Ayurveda Health Centers and dispensaries, which is free of cost for all visitors. However, especially in hospitals, minimal cost is charged if the drugs are produced/ procured from internal resources of the organization. Local traders/distributors sell the drug with or without prescription of Ayurveda practitioners but there are certain drugs which are not allowed to dispense without prescription of registered academic Ayurveda practitioners. Traditional healers either prepares drugs for their patients themselves with own formulation or prescribe ready-made (industrial) production available in markets.

5.4 Import and export

Despite having immense potentialities of manufacturing Ayurvedic and other natural drugs for domestic purpose as well as export in global markets, Nepal imports of more than 150 cores NRS and it has been increasing by 25% per year¹⁴. Nearly 29 Indian companies are supplying Ayurvedic drug in Nepal¹⁵. Homeopathic, naturopathic and unani drugs are imported from India as there is no production in industrial level in Nepal.

Permission from Department of Drug Administration is mandatory for export and import of herbal drugs.

5.5 Herbal Garden, Cultivation, collection storage

National Ayurveda Health Policy- 1996 aims to encourage qualitative business of herbs developing model herbal farms and also encourages health centers to develop herbal gardens and develop coordination with NGOs and private sectors. However policies are not implemented satisfactorily. Commercial cultivation of herbal plants has not properly developed in Nepal. Cultivation is reported somewhere with initiation of I/NGOs or community forest groups but has not flourished as expected. Department of Ayurveda has financially supported couple of health centers or hospitals for the development of herbal gardens within the office periphery.

Botanical gardens are developed in five districts (Dang, Surkhet, Kaski, Chitwan, Ilam and Kathmandu) for the sake of preservation, conservation and study on medical as well as economic potentialities of herbal resources locally available.

Since commercial cultivation of medicinal plants has not developed in Nepal, medicinal plant parts are collected from the wild state. Permission from the local Forest Office is mandatory to collect local herbs from wild state. Seasonal plants are allowed to collect paying the fixed amount of royalty. However, these legal provisions are not followed by the people due to complicated procedures and limitation in harvesting.

¹⁴ Source: www.ayurnepal.com

¹⁵ DDA 2006

Economy of the rural community people is relying on the seasonal herbs grown in the nearest forest. Their cut-throat competition to harvest herbs results immature collection, off-season collection and unwanted part collection. Possibility of propagation therefore remains no or much low in the next season. This is the reason why many species were already extinct or in threat of extinction. People are neither knowledgeable nor well-equipped to harvest herbs from wild state, and nor store the harvested materials properly.

5.6 Utilization of traditional medicine

Traditional medicine has been a culture of every Nepali household. Every family uses local herbs or minerals or animals parts for treatment of common ailments. Such knowledge and experience is normally shared within the family or relative and service is almost free for all. Collection of raw materials, physical processing using local traditional tools, dosages and medication process are simple and influenced by culture and religion. Similarly, traditional healers are more knowledgeable and experienced and professionally established as a healers, who provide more reliable services for the local people. In recent time, traditional medicine systems are being more institutionalized and industrialized as well as commercialized. The coverage of importance of traditional medicine has been extending with or without replacing the role of modern medicine.

6. Impact of WTO and TRIPS agreement

Nepal's location in the centre of the Himalayan range places the country in the transitional zone between western and eastern Himalaya. Nepal is rich in both biological and cultural diversity. Although the country represents only 0.1% of the world's land area, it supports a comparatively high percentage of earth biodiversity. Nepal stands 31st in the world biodiversity position.

Within these extreme variations, medicinal and aromatic plants preserve specific qualities and effectiveness and peoples are using these herbs since antiquity. There are more than 60 ethnic groups; peoples are having the long tradition of using natural resources (as medicines or economic resources) with their own experiential knowledge and they have symbiotic relation with their biodiversity. There are more than 400,000 of such knowledge holders. They are using more than 35000 medicinal and aromatic plants in diverse health conditions (as a health promotive, disease preventive and cure of diseases, and as a food supplements) and their livelihood. More than 4500 codified manuscripts (some of them are only in Nepal) and huge tradition of non-codified tradition of medical knowledge.

The principles of WTO are to develop trading system "without discrimination" "freer", "predictable", "more competitive" and "more beneficial for less developed countries (LDCs)". Least developed countries are benefited in the sense that, they have adequate time to adjust, greater flexibilities and special privileges. [19]

There are several provisions in five WTO agreements¹⁶ that are in favor of developing countries and the country has potentialities to be benefited.

However, LDCs are always exploited. The country cannot benefit from its status as a WTO member unless its products meet international standard. Under the new regulations, financially strong and technically powerful multinational companies can enter the country without any hindrance. But local products, which don't meet WTO standard, can neither compete with international products nor enter the international markets [20].

Liberalization and globalization pose great challenges to Ayurvedic industries. First, there is the challenge of survival, originality, resources and method of application of indigenous knowledge, and secondly, the challenges of adaptation of scientific and technological advances for quality production to penetrate international markets. [21]

Nepal has signed Convention of Biological Diversity (CBD) on 1992 and became a party of CBD on 1994. And Nepal is also the signatory of WTO 2004. The legal regimes of WTO, TRIPS and IPR are to ensure the innovators' rights, commercialization of such innovation with proper scientific interventions and want to provide the guarantee to the user. So, protecting Traditional Medicine Knowledge (TMK), innovations and practices is must to the country like Nepal. Protection of TMK is a necessary but not sufficient requirement for its preservation and further development. Nepal to harness TMK for development and trade, need a firm national commitment, policy and priority, (which is lacking within the Ministry of Health and Population) and also need assistance to built national capacities in terms of raising awareness on the importance and potential of TMK for development and trade; developing institutional and consultative mechanisms on TMK protection and TMK-based innovation; and facilitating the identification and marketing of TMK-based products and services.

There is also a need to promote and exchange of experience among developing countries (like Traditional Knowledge Digital Library system from India, national registration or documentation and bio prospecting researches) on national strategies for TMK development, sui generic system for the development of TMK and the commercialization of TMK-based products and services, specially within the ministry of Health and Population, government of Nepal.

Lacking of minimum and proper system or mechanisms at least within the ministry of health and population it is early to assess the visible impacts. It is being already late and strong indications are coming and country is becoming extremely weak to protect and commercialization of TMK based products and services. So there is an urgent need to develop strong mechanisms to protect local knowledge and resources from piracy and patent by others.

¹⁶ a. General Agreement on Tariffs and Trade (GATTT); b. General Agreement of Trade and Service (GATS); C. Agreement on the Application of Sanitary and Phytosanitary Measures (SPS); D. Agreement of Technical Barriers to Trade (TBT); E. Agreement of Trade Related Aspects of Intellectual Property Rights (TRIPS)

7.1 Human Resource Development

Taking into consideration that paramount role of skilled and knowledgeable manpower, National Ayurveda Health Policy-052 (6) has stated that seven-point policy on Ayurveda education and man power development. Education programs for production of graduate-level, middle-level and basic-level, introductory knowledge for foreign citizens, arrangement of various kinds of trainings, establishment of National Ayurvedic Institute, are the major objectives aimed by the NAHP-052.

Formal education in Ayurveda for graduation level is under Tribhuvan University. Ayurveda College is the nation's very first educational institution to produce health professionals which was established in 1933 AD. Now several institutions are running certificate or equivalent degree (Ayurveda Health Assistant) under Nepal Sanskrit University (state-owned universality) and 15-month training (Ayurveda Health Workers¹⁷) by Council for Technical Education and Vocational Training (CTEVT)-affiliated institutions. Every year, nearly 100¹⁸ Ayurveda Health Workers, 350 Ayurveda Health Assistants and 15 Physicians (BAMS) are producing in the country through the 3 training centers, 7 colleges (NSU) and 1 college (TU) respectively.

Significant numbers of Ayurveda physicians have studied in Indian colleges. Post graduation in Ayurveda science is not available in Nepal. Nepal Ayurvedic Medical Council recognizes only those university and colleges which are recognized by the CCIM and also verifies the certificates from the colleges during the process of registration. A large numbers of so called Ayurveda practitioners are practicing Ayurveda in Nepal without registration and data on such practitioners is not available.

Others

Diploma in Medicine and Surgery (DMS), Diploma in Homeopathy Medicine and Surgery (DHMS), Bachelor in Medicine and Surgery (BMS) and Bachelor in Homeopathy Medicine and Surgery (BHMS) are the educational degree in Homeopathy which are studied in India. Three physicians are working in the Homeopathy hospital¹⁹ and one in Unani is working in a government dispensary. These both are located within the same complex in Kathmandu valley. One college for the graduation level study in Homeopathy has been recently established from private sector in Nepal. Yoga practitioners are also found practicing in private sector who, are six-month trained after SLC or two year education after graduation.

- *Total number of manpower under Department of Ayurveda*

Types	Post		Total	Vacant
	Technical	Administrative		
Officer level	97	679	776	4
Assistant level	98	635	733	101
Total	195	1134	1509	105

¹⁷ AHW (Ayurveda Health Worker) and AAHW (Auxiliary Ayurveda Health Worker) are same

¹⁸ These numbers are estimated as the number of application dropped at council for registration

¹⁹ Currently with six beds and 25 bed are proposed

- *In other Ayurveda organizations*

Organizations	Technicians		Administration		Total	Remarks Vacant posts
	Officer Level	Assistant Level	Officer Level	Assistant Level		
SDVKVS	9	41	1	18	69	22
NAH	12	46	1	45	91	10
RAH	2	9	-	12	23	6

SDVKVS-Singh Durbar Vaidya Khana Vikas Samiti, NAH-Naradevi Ayurveda, hospital, RAH-Regional Ayurveda Hospital, Dang

- *In other TRM systems*

DMS, DHMS, BMS and BHMS are four different degrees in Homeopathy. A private college in eastern Nepal is running BHMS degree and rest of all are Indian degrees. Education in Unani, Naturopathy, Acupuncture and other systems also are not available in Nepal.

Only 3 doctors in homeopathy and 1 in Unani (BUMS from) are serving in government services. Only 1 physician is in acupuncture and acupressure is in government services and 6 physicians and 78 assistant-level are practicing in private sector.

10 Naturopathy practitioners, 8 Yoga practitioners either from 2-month-trained after SLC to 2-year course completed are practicing Yoga. 93 SLC-level, 35 certificate-level, 31 Amchi practitioners and 27 graduated Amchi Doctors (in total 186) are in Amchi. Most of the graduated Amchi doctors are educated in India.

7.2 Training program syllabus: clinical trainings, community medicine

Training on traditional medical systems in Nepal can be categorized into two groups – academic course and training course. Benefit of academic course is potentialities for further education in the same stream. Non-academic education is professional training course designed for practicing at certain level. Both courses are accepted for government service if the institution is recognized by NAMC. BAMS and AHA²⁰ is bachelor and certificate level academic degree respectively. Similarly, AAHW or AHW are 15-month training course.

Different syllabuses are designed by the educational institution for each course, which are recognized by NAMC. They provide theoretical as well as clinical knowledge within the college and also associating with Ayurveda health centers.

7.3 Special therapeutic procedures

There are special therapeutic procedures in every system like *Netra darpana*, *Panchakarma*, *Sat kriyas*, *Kshyar sutra*, *Nasya karma*, and several others in Ayurveda.

Spiritual therapist or faith healers have special type of therapeutic procedures. They also exist in most of the communities in Nepal. Although people believe and follow their treatment methods, their special therapeutic procedures sometimes create controversy.

²⁰ AHA- Ayurveda Health Assistant is certificate level equivalent training course. Some institutions are providing bridge course and only those are recognized as certificate level academic course.

7.4 Acupuncture and moxibustion

Only 1 physician in Acupuncture/Acupressure is in government services. 6 physicians and 78 assistant-level are practicing in private sector. Two institutions are producing assistant level acupuncture/acupressure technicians (10). It clearly shows that situation of human resources development requires an urgent need to pay attention.

7.5 Pancakarma

Pancakarma has been accepted as an essential service by all the Ayurveda hospitals, ZADs and DAHCs in policy and job descriptions. However, this service is limited only in central Ayurveda hospital. Even in the central hospital, all the components of *Pancakarma* are not provided. There are not more than 12 personnel in the country, who have been well-trained in *Pancakarma*. Effort for the development of human resources and other infrastructure for this service are being made.

7.6 Yoga

Some specialized Yoga teachers/practitioners and number of institutions are available in Nepal, but the exact number is not available. Eight Yoga practitioners either with 2-month-trained after SLC or 2-year course completed are practicing Yoga in Nepal. Yoga is considered one of the major parts of Ayurveda. So the number of Yoga practitioners could be significant. However, it is injustice to compare the quality of Yoga service by the Ayurveda practitioners and other practitioners. [13]

Yoga has been widely popularized system of medicine in recent years. Nation has recognized the system but much has to be done for its development and expansion of services.

7.7 Any other country specific therapy

Every community, especially indigenous, ethnic community has their own understanding of disease and methods of treatments. Process of diagnosis, preparation of drugs, and medication even for similar types of health problems may vary in different communities as culture differs. The practitioners are popularly known as Dhami, *Jhankri*, Jharfuke Vaidya, *Guruba* etc.

8. Research and Development

Research on clinical trials, safety and efficacy of drugs, ethical issues, toxicology studies and standardization etc are important. However, traditional medicine sector in Nepal is still virgin area for research. Non-clinical researches like research on medicinal plants, indigenous medical knowledge are being conducted by botanist and anthropologist, which may directly or indirectly contribute for TRM, but traditional medical practitioners are seldom involved. Except in policy making, research and development is the least developed and least prioritized area in traditional medicine systems including Ayurveda.

Even programs are not developed in Homeopathy due to lack of adequate skilled manpower and budget. Service and human resource are developing in Acupuncture and Acupressure but no fundamental work has been done in research. Yoga and naturopathy

practitioners claim (in open forum) research has been initiated from the private sector. Similar situation is in Amchi also. *Amchi* practitioners are rigorously concentrated in documenting innovations *innovative clinical data* [10]. However, overall outcomes of research and developments activities are not significantly contributing yet for development of TRM satisfactorily.

8.1 Organization for research

Research on Ayurveda and other traditional medicine is yet to be flourished in Nepal. Ayurveda Hospitals, manufacturing industries and educational institutions are potential organizations for research contribution. Except couple of clinical as well as non-clinical researches are conducted by the individual Ayurveda physicians, no research has been undertaken by the responsible organizations. The proposed "National Ayurveda Research and Training Institute" with the assistance of the government of Peoples Republic of China, has shown the rays of hopes for research and development activities in Ayurveda.

Nepal Health Research Council (NHRC) is the apex body to regulate all types of research works in health sector including in traditional medicine. This organization also has been supporting research on traditional medicine (Policy aim 3.1)²¹ providing financial support for the researchers. Researches on traditional medicine and indigenous knowledge have been conducting in financial support of NHRC in recent years but are nominal in comparison with researches on bio-medical systems²². Similarly MoH has also begun carrying out research on effectiveness of health services by state-run Ayurveda hospitals and health centers²³.

8.2 Policy Issues

National Ayurveda Health Policy-1996 (8) aims for establishment of Ayurvedic Research Institute furnished with required equipments for international standard research on Ayurveda medicine. Likewise, the policy has focused on preservation and data bank development of classical manuscripts, magazine publication with adequate information on protection, farming, promotion, utility method, environment education; campaigning for protection of knowledge of traditional healers, coordination with Ayurveda Research Institute. Research on other kinds of traditional medicine has been addressed in several documents but situation is not satisfactory. [22]

As per Nepal Health Research Council Act 1991 section 6 sub-section "chha", it has been mentioned to publish and disseminate the knowledge, experience and achievement of research undertaken in Nepal. The national health Research Policy comprises of vision, mission, goal and the future strategies as it aims to promote health research in all areas

²¹ Policy aim 3.1: To promote research on biomedical, clinical and behavioral sciences, public health, health economics, health policy, traditional medicine, and other areas. (NHRC policy 2003)

²² A research on traditional healing practices by the healers in Kathmandu for treatment of Jaundice was carried out by Nepal Ayurveda Society in 2003

²³ A research on effectiveness of health services provided by state-run Ayurveda health organizers was carried out by Nepal Ayurveda Society in 2005

including biomedical, clinical, public health, behavioral, traditional and health economics research so that the priority health problem which has been identified by MoH could be addressed and could lead for the promotion of health research culture in the country. [19]

8.3 Infrastructure for research

Despite having tremendous potentialities for research and innovation in Ayurveda and other TRMs, no progress has been seen in infrastructure set-up in the country. Much has been hoped in Ayurveda from the National Ayurveda Research and Training Institute that is going to be established soon in financial support of Chinese government. This institution may contribute even for other medical systems if inter-sectoral co-ordination and cooperation is developed.

8.4 Human resource

The country lacks adequate human resources for research in traditional medicine. However, knowledgeable, skilled and experienced graduated and post graduated technical manpower has not been properly utilized in research. Nearly two dozens post-graduated Ayurveda physicians are there, but they are not utilized and have been made almost idle in the sense of clinical and drug development and other research.

8.5 Clinical trials

Situation of research on clinical trials, safety and efficacy of drugs, ethical issues, toxicology studies and standardization are not completely developed in traditional medical sector. The reason is not other than lack of minimum requirement for research infrastructure, reliable source of funding, clear policy and planning, skilled manpower and inter-sectoral cooperation. Existing knowledgeable, experienced graduated and post-graduated physicians are not properly involved in research and development sector due to weak management and implementation of policy and planning.

9. International collaboration

9.1 WHO collaboration in TRM

WHO has been supporting for development of TRM in Nepal since late seventies. Both long term and short term training programs for Nepalese practitioners have been supported by WHO providing scholarship. Document preparations like guidelines and parameters development activities also are supported. Equipments and medicine purchases, machines for rural pharmacy, vehicles for Department of Ayurveda and other Ayurveda organizations are funded. WHO has been providing financial support for observation tours, national and international meetings, training programs for traditional healers, production of paramedical etc.

9.2 Bilateral collaboration in TRM

Indian colleges are providing seats for Nepali Ayurveda students at graduate and post-graduate level. Similarly China also provides training opportunity to study Acupuncture/Acupressure and other medical course on traditional medicines. Both countries are supporting for observation tour, short term course. Experts were invited in educational institutions, manufacturing industry from India in earlier days. The government of

Peoples Republic of China has been supporting for proposed National Ayurveda Research and Training Center.

9.3 Multilateral/Regional collaboration:

A regional conference was held in Nepal 1990 on TRM. It was continued in Islamabad 2002. Country paper by all member countries presented and discussed on possible collective effort for development of traditional medicine.

10. Future Trend in the growth & development of TRM in the country

Among the various types of traditional medical systems existing in Nepal – whether they are recognized by the state or not – Ayurveda is comparatively well managed, systemized, organized system than others. Ayurveda is functioning with well designed policy, planning and well defined rules and regulation. Numbers of health services centers, educational institutions, manufacturing companies and other relevant activities are extensively increasing in recent days.

It doesn't mean that Ayurveda system is free from indecision, leadership-less as well as multi-leadership situation. Despite having a long experience and strong foundation for development, this system is still in tortoise pace. Neither the effectiveness of service providers is improved nor have R&D activities been carrying out satisfactorily.

In case of other systems of traditional medicines, the country has recognized more than a half dozen types of traditional medical systems but has not prioritized for development.

- Analyzing the current situation

Human resources: Gradual progress in human resources development in Ayurveda sector shows that it has futures. Only the problem is post-graduation education and management of existing human resources. Three doctors in homeopathy, one in Unani and only one physician in acupuncture and acupressure are in government services. Naturopathy practitioners have been practicing in private sector. Amchi, Yoga and Naturopathy practitioners are not getting opportunity to be associated with state-run organization.

Educational Institutions: Ayurveda has nearly a dozen educational institutions to produce different level technicians. Homeopathy College to produce graduated practitioners has recently established in initiation of private sector. However, no academic course is available in other systems. Couples of institutions are running to provide training in Acupuncture/Acupressure, Yoga, Amchi etc but they are not recognized yet. Post graduation education in any TRM systems including Ayurveda is still unavailable in Nepal.

Service centers/Organizations: 291 state-run health services centers in Ayurveda, one hospital (with six beds) in Homeopathy, one dispensary in Unani, Acupuncture/Acupressure unit associating with Naradevi Ayurveda Hospital, has been

operating traditional medicine in Nepal. This shows situation of other traditional medicine except Ayurveda has not developed satisfactorily.

Medicine/ equipments production and availability: 15% of national requirements and almost 80% Ayurveda drugs required for distribution through health centers are fulfilled by national production. Rest of systems are either limited within the clinical production or imported from India. Stethoscope, Sphygmomanometer, ENT Box etc are used in almost systems besides specific tools need for as per the philosophy of systems e.g. Acupuncture/acupressure need special needles. Utilization modern tools and equipments and pathological tests are seldom happens.

Resource management: Thousands of traditional healers and their indigenous knowledge, recipes, technology, herbal resources, minerals, classical texts, academic practitioners are important resources of traditional medicines. Despite having immense potentialities to capture the national as well as international markets, the country is still far behind to grab the opportunities utilizing available resources. Similarly, available human resources are not properly managed for clinical research and developmental works.

Research and Development: Research and development in traditional medicine has not been happening except couple of non-clinical researches conducted by individual researchers.

WTO/TRIPS/IPR: National registration, inventories, bio prospecting research, legal provisions systems on TRM products, services and trade are almost not in existence with ministry MoH & Population.

- Immediate step need to be moved

Education and trainings and standard – Education and trainings are fundamental needs for every system. Production of capable human resources, production of quality medicines, research and development, industrial development etc are possible only if skilled manpower is available. Post-graduation education in every traditional medical system and opportunities for abroad study should be available.

Policy and Planning: Traditional medicine practitioners are the backbone of the health system of the country. They are contributing for large portion of the total population with reliable, affordable and easily available services. Country should recognize their role and must respect their knowledge and efforts. Only effective policy, planning and their proper implementation can preserve, promote, develop and possible to utilize in sustainable manner.

Rules and Regulations: A strong regularity system not only control and manage but also provides opportunities traditional medicine to be flourished. Separate regularity and registration body should develop for each and an umbrella organization is the urgent need.

Implementation of guidelines and parameters designed by DoA: Guidelines and parameters developed Department of Ayurveda in support of WHO should be strictly followed by the concerns organizations.

Research and Development: Safety, efficacy and quality control have been the major issues and scientific intervention may be the only one solution to assure. Scientific intervention contributes also in innovation of new formulations. Manufacturing industries should be promoted with modern technology with research equipments to maintain quality standard based on their philosophy and principles. Government support is essential.

Drugs and equipments production and distribution: Modern technology and equipments are needed to be introduced. Ayurveda classical, traditional healers or practitioners' knowledge and experiences, Naturopathy, Homeopathy, Amchi and Unani practitioners extensively use herbs, minerals and marines to prepare drugs in clinical level. Their knowledge and experience should be industrialized under the management of a scientific umbrella organization.

Resources mobilization and coordination: Locally available natural resources, human resources and knowledge should be properly managed and utilized from local level. Interaction and coordination with national and international organizations, donor agencies, research institutions, manufacturing companies etc is essential to promote development activities of traditional medicines.

Inter-sectoral cooperation: Short term inter-sectoral trainings to the health, forestry, anthropology, agriculture and related field peoples are required and multi-sectoral collaborative is essential.

Issue of Integration: Integration of traditional medicine into the national health care systems has been proved a necessary. Only the question is about model of integration that could be appropriate for us.

Every health service organization should provide services of alternative medicine. Integration in research must be mandatory but research should bias with its fundamental principle and scientific intervention. National Health Service programs must be integrated and need base services can be integrated but specialization services require separate functional organizations. Traditional medical practitioners are never involved in vitamins, immunizations etc national programs. They should get such opportunities to be associates in national programs so that they can get share knowledge and ideas with various practitioners.

Intellectual Property Rights: Appropriate policies and protection for Indigenous knowledge should be developed which meeting the international standards. Country need support in developing national inventory, registration, protection, tools and system. Research intervention from multidisciplinary groups with proper IPR guidelines is

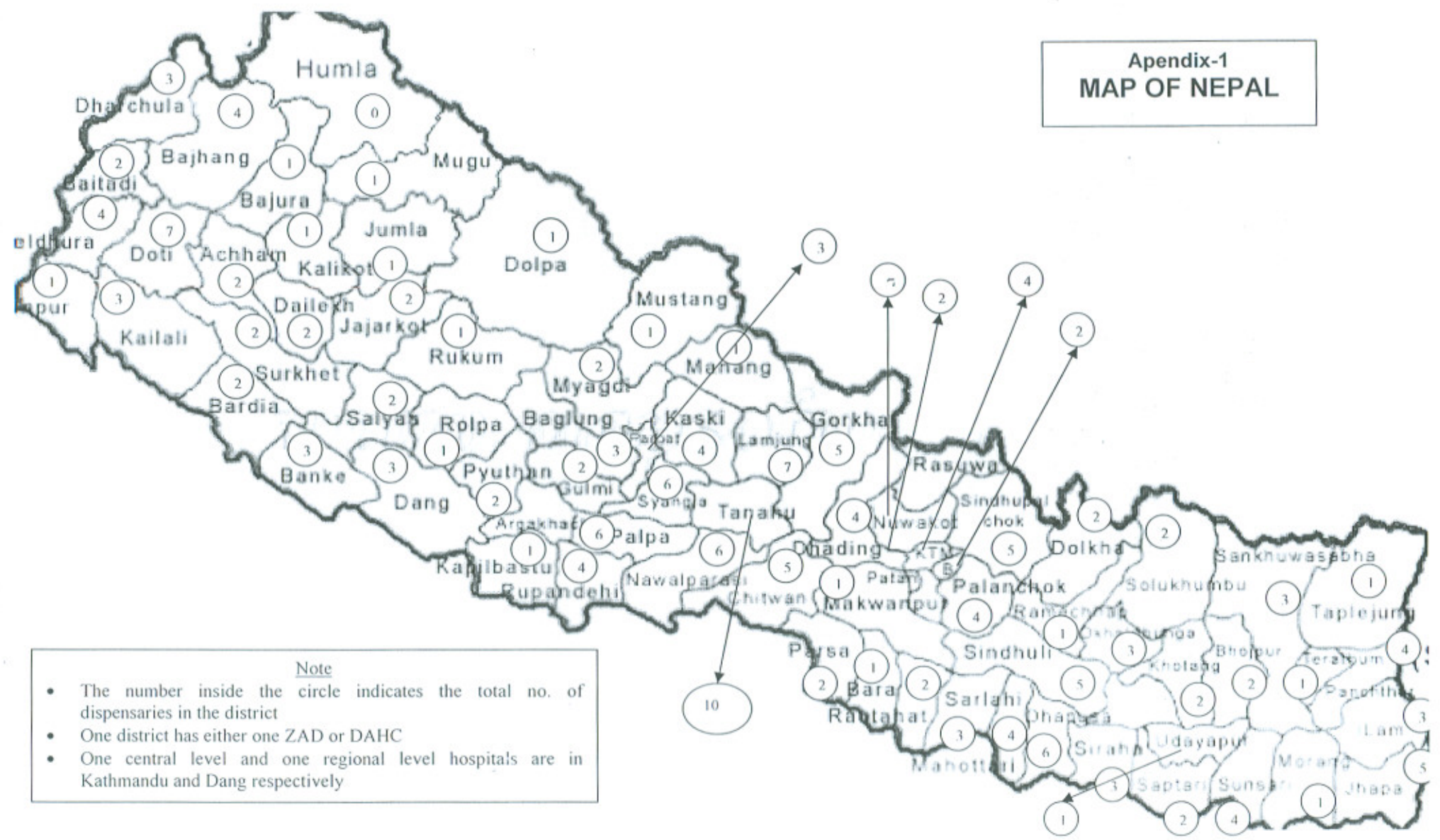
necessary. An extensive guidelines and mechanism for TRMK products and services trade also acutely needed.

Formation of coordinating committee: Coordination with local people, local social organizations, government and non-government organization directly or indirectly associated with TRM, develops feeling of ownership to the existing TRM that can form a network for interaction and cooperation.

Conclusion

- Department of Ayurveda and Ayurveda and Alternative medicine Section in Ministry of Health and Population must play pivotal role for the overall activities for preservation, promotion, development and research on all existing traditional medical systems.
- Traditional medical systems and practitioners should be respected and country should recognize their contribution in national health care system.
- Appropriate system and infrastructures should be developed to take benefit as well as to protect national resources – medical plants, century old traditional and indigenous knowledge, technologies, recipes etc as the country has already agreed several WTO and TRIPS agreements. This is a crucial threat, challenge and also the great opportunity for health & economic growth of the country.
- Graduated and post-graduated human resources associated with any types of traditional medicines should be properly utilized and they should get opportunities for further study to enable them in research and development.
- Alternative and Traditional Medical Council should be formed to regulate Homeopathy, Unani, Naturopathy, Amchi and other systems practitioners and educational institutions. NAMC and NHPC are already established.
- Integration of traditional medicine into national health care system is essential to bring all system in mainstream for collective efforts. MoH, especially Ayurveda and alternative medicine section, should initiate debate on the issues of integration so that appropriate model of integration and coordination can be designed in country context.
- Production of manpower, drugs, equipments and distribution should be regulated as well as managed to improve the quality of health service.
- National resources should be allocated without bias. Needy potential areas should be prioritized. Most of the TRM systems including Ayurveda are functioning without adequate budget, manpower, equipments and other physical facilities.

**Appendix-1
MAP OF NEPAL**



Note

- The number inside the circle indicates the total no. of dispensaries in the district
- One district has either one ZAD or DAHC
- One central level and one regional level hospitals are in Kathmandu and Dang respectively

Ayurveda health service centers in Nepal

Development Region	Zone	District	DAHC/ZAD	Dispensaries	Total Number		
					Dis.	Zone	Reg
Eastern	Mechi	Jhapa	1 (Chandragadi)	Sanischare, Dudhe, Baigundhara, Budhabare, Bahundangi	6	17	54
		Ilam	1 (Aitbare)	Fakfok, Ektappa, Jamuni	4		
		Panchthar	1 (Rakevanjyang)	Pipalbote, Mauwapanchami, Lungrupa, Faktep	5		
		Taplejung	1	Fungling)	2		
	Koshi	Sunsari	1 (Inaruwa)	Maduvan, Dharan, Itahari, Pakali	5	18	
		Morang	1 (Kanchanbari)	Rajghat	2		
		Dhankuta	1	Chhintang	2		
		Terhathum	1 (Myanglung)	Sankranti	2		
		Bhojpur	1	Dingla, Ankhe	3		
		Sankhuwasabha	1 (Khandbari)	Bla, Hedangana, Ankhibuin	4		
	Sagarmatha	Siraha	1	Mirchaiya, Golbazar, Lahan	4	19	
		Saptari	1	Maljhumna, Dharmapur	3		
		Udayapur	1 (Gaighat)	Limpatar	2		
		Khotang	1 (Diktel)	Halesi, Kharpa	3		
Okhaldhunga		1	Chuplughorakhori, Serna, Diyale	4			
Solukhumbu		1 (Salleri)	Nele, Tingla	3			
Central	Janakpur	Mahottari	1 (Jaleswor)	Baleva, Parsadebar, Matihani, Manara	5	27	81
		Dhanusha	1-Janakpurdham	Sabela, Sonigama, Yadukuwa, Bahuarva, Raghunathpur, Bateswor	7		
		Sindhuli	1-Sindhulimadhi	Kapilakot, Dumjakusheswor, Bahuntipung, Bhimsthan, Ranibas	6		
		Sarlahi	1 (Malangwa)	Haripurva, Kaudena, Kabilasi	4		
		Ramechhap	1 (Manthali)	Chisapani	2		
		Dolakha	1 (Charikot)	Lapilang, Vedapu	3		
	Bagmati	Dhading	1 (Dhadignbesi)	Jyamrung, Gajuri, Sertungborang, Baireni	5	38	
		Nuwakot	1 (Devighat)	Thansing, Taruka, Narjamandap, Khanyokhark, Sundaratame, Raluka, Dhikure	8		
		Kabhre	1 (Banepa)	Dhulikhel, Baluwa, Dapcha, Mangaltar	5		
		Kathmandu	1 (Jaybageswori)	Farping, Bhadrabas, Inchangunarayan, Kirtipur	5		
		Bhaktapur	1 (Suryabinayak)	Kharipati, Madhyapur thimi	3		
		Lalitpur	1 (Lagankhel)	Chappaun, Bisankhunayan	3		
		Rasuwa	1 (Dhunche)	Laharepauwa, Bhorle	3		
		Sindhupalchok	1 (Chautara)	Thokarpa, Pipaldanda, Jarayotar, Thakani, Tauthali	6		
	Narayani	Chitwan	1 (Tandi)	Madi, Devghat, Shivghat, Patihani, Gunjanagar	6	16	
		Parsa	1 (Birganj)	Raniganj, Bahuarwamada	3		
		Rautahat	1 handranigahapur)	Pipar, Basantapur	3		
		Bara	1 (Kaliya)	Simraungad	2		
Makawanpur		1 (Hetuda)	Kaknda	2			
Western	Gandaki	Lamjung	1 (Banjkhhet)	Tarkughat, Paninunkhani, Sindure, Bhotewodar, Sotipasal, Sribhanjyang, Chakratirtha	8	39	80
		Tanahun	1 (Damauli)	Sisaghat, Tuhrepasal, Jamune, Keshvtar, Virkot, Bandipur, Vanu, Khairenitar, Risti, Rupakot	11		
		Manang	1	Bagarchha	2		
		Gorkha	1	Manakamana, Durbungfujel, Palungtar, Ghyalchok, Saurpani	6		
		Kaski	1 (Lekhnath)	Begnas, Hamspokhari, Lumle, Shishuwa	5		
		Syangja	1 (Putalibazar)	Ratnapur, Aruchaur, Arjunchaupari, Khaharedhanubase, Sankhar, Khilung Deurali	7		
	Lumbini	Nawalparasi	1 (Arungkhola)	Kushma, Triveni, Rajahar, Dedhgaun, Gaindakot, Kawasoti	7	27	
		Arghakhanchi	1 (Sindhukharka)	Divarna	2		
		Palpa	1 (Tansen)	Rampur, Birkot, Chhahara, Chidipani, Palungmaidani, Gandakot	7		
		Kapilvastu	1 (Taulihawa)	Pakadi)	2		
		Gulmi	1 (Tamghas)	Ridi, Pipldhara, Purtightat	4		
		Rupandehi	1 (Kapilvastu)	Majhgawa, Manpakadi, Rudrapur, Karahiya	5		
	Dhaulagiri	Parbat	1 (Falebas)	Paiyuhatiya, Shankarpokhari, Shaligram	4	14	
		Baglung	(Kalikasthan)	Baleba, Jaidibelbagar, Bihu Suldanda, Damek	5		
		Mustang	1 (Jomsom)	Kagbeni	2		
		Myagdi	1 (Benibazar)	Mahendrarankhu, Thakdana	3		

Mid-Western	Rapti	Dang	1 (Tulsipur)	Gobardiha, Hansipur, Belahi	4	13	39
		Rolpa	1 (Liwang)	Mijhing	2		
		Pyuthan	1 (Khalanga)	Bhing, Lung Gau	3		
		Salyan	1	Rim Gau, Garijyula	3		
	Rukum	1 (Chorjahari)		1	16		
	Banke	1 (Nepalgunj)	Jaispur, Kohalpur, Titiheriya	4			
	Bardia	1 (Guleria)	Munau, Jamuni	3			
	Surkhet	1 (Birendranagar)	Badepipal, Dandadara Chhapre	3			
	Dailekh	1 (Dullu)	Dullu, Bilaspur	3			
	Jajarkot	1 (Khalanga)	Karkigaun, Jugathapachaur	3	10		
	Humla	1 (Simokot)		1			
	Jumla	1	Sinja	2			
	Mugu	1 (Gamgadhi)	Nakharji	2			
Kalikot	1 (Manma)	Raskot	2				
Far-Western	Seti	Dolpa	1 (Dunai)	Shaharatarata	2	22	36
		Kailali	1 (Dhangadhi)	Beladevipur, Hasulia, Tikapur	4		
		Doti	1 (Jorayal)	Chanudanda, Dipayal, Tauleni, Lanakedareshwor, Latamandu, Sanogau, Jijedamandu	8		
		Bajhang	1 (Chainpur)	Thalahara, Bugalsattaya, Vyasi)	5		
		Achham	1 (Mangalsen)	Binayak, Bayalpata)	3		
	Mahakali	Bajura	1 (Martadi)	Kundakolti)	2	14	
		Kanchanpur	1-Mahendranagar	Jhalari)	2		
		Dadeldhura	1	Rupalamikande, Manilek, Alital, Jogbuda)	5		
		Baitadi	1 (Dasharathchand)	Gajari, Musyachaur	3		
		Darchula	1 (Khalanga)	Brahmadev, Ukhu Jalajibi, Gokhule	4		

3

Summary of the Ayurveda health service providing organizations in Nepal^{24, 25}

Ayurveda dispensaries	Zonal Ayurveda Health Centers	District Ayurveda Health Centers	Ayurveda Hospitals	Total
214	14	61	2	291

²⁴ One 100 bedded central level and one 30 bedded regional level Ayurveda hospitals are located in Kathmandu and Dang respectively

²⁵ There is no significant difference between zonal and district level Ayurveda health centers. One district has either ZAD or DAHC only.

Appendix – 2

Training institutions in TRM in Nepal

- In Ayurveda sector

SN	Level	Name and address	Seat
1	Post-graduation (MD)	-	1
2	Graduation	Ayurveda College, Kirtipur, TU	15
4	Ayurveda Health Assistant run by/ affiliated with NSU		
	1	Janata Vidyapeeth, Bijauri, Dang	40
	2	Kapilvastu Ayurveda College, Kapilvastu	40
	3	Nikhil Ayurveda College, Pokhara, Kaski	40
	4	Janak Ayurveda Vidyapeeth, Janakpurdham	40
	5	Institute of Health Research & Development, Dhanusha	40
	6	Janata Ayurveda College, Gaur, Rautahat	40
	7	Uttar Dhanwantar Ayurveda College, Rautahat	40
5	Auxiliary Ayurveda Health Worker run by/affiliated with CTEVT		
	1	CTEVT, Morang	40
	2	Jagadambe Ayurveda Institute, Rajbiraj	40
	3	Ayurveda Medical Institute, Janakpurdham	40

- In other sector

System	Name and address	Seat	Remarks
Homeopathy	Homeopathy College, Biratnagar	40	Affiliated to Purbanchal University
Unani	-	-	-
Naturopathy	-	-	-
Acupuncture	Two institutions are producing assistant level acupuncture/acupressure technicians [11], but yet to be recognized by the government.		
Yoga	-	-	-
Amchi	76 students are studying Amchi in 5 different institutions [10], but yet to be recognized by the government.		

Apendix-3

Current status of Ayurveda practitioners

SN	Level	Registered	Remarks
1	Post-graduation (MD)	21	In eight different subjects till the date
2	BAMS or equivalent	254	Graduation (studied in Nepal or India)
3	Ayurveda Health Assistant	816	Certificate level or equivalent
4	Auxiliary Ayurveda Health Worker	332	SLC + 15-month trainings
5	Traditional healer ²⁶	19	Having no background in medicine

Source: NAMC/Date- 30Aug 07

Current status of traditional medicine practitioners registered in NHPC

SN	Subjects	Level					
		First		Second		Third	
		Temp	Perm	Temp	Perm	Temp	Perm
8.	Ayurveda ²⁷	-	6	7	182	28	900
9.	Homeopathy	1	29	-	10	-	-
10.	Unani	1	9	-	-	-	-
11.	Acupuncture	1	4	1	1	-	1
12.	Naturopathy	2	3	-	-	3	1
13.	Yoga	-	3	-	-	-	1
14.	Amchi	-	-	-	-	-	-

SN	System of Medicine	Total	Remarks
1	Ayurveda	1123	Including all levels
2	Homeopathy	40	Only first and second level
3	Unani	10	Only first level
4	Acupuncture	8	Including all levels
5	Naturopathy	6	Only first and third level
6	Yoga	4	Only first and third level
7	Total registered TRM	1191	All

Source: NHPC/Date of collection: 20th Aug 2007

Registered Educational Institutions in Nepal under NAMC

SN	Level	Institution	Seat	Remarks
1	Post-graduation (MD)	-	-	Not available in Nepal
2	Graduation	1	15	Running by TU
3	Ayurveda Health Assistant	7	40	Running/affiliated with NSU
4	Assistant Health Worker	3	40	Running/affiliated with CTEVT

There are about 154 Amchis registered under Himalayan Amchi Association (HAA) in Nepal. [15]

²⁶ Authentic data on traditional healer in the country is not available. Estimated number is 400000. Ayurveda based traditional healer in Kathmandu Valley is around 12000 as practitioners' association claim.

²⁷ Ayurveda practitioners were also used to be registered in NHPC before NAMC established.

Apendix-4
ESSENTIAL AYURVEDA DRUG LIST

1. Aanandabhairav rasa*
2. Abhayarishta**
3. Ajamodadi vataka
4. Almond oil**
5. Amritarishta**
6. Arjuna choorna
7. Arjunarishta**
8. Arka lavana
9. Arogyavardhani vati*
10. Arshakuthara rasa*
11. Arshoghna malaham
12. Arshoghana vati*
13. Arvindasava**
14. Ashikarishta**
15. Ashwagandha taila*
16. Ashwagandhi choorna
17. Ashwagandharishta**
18. Avipattikar choorna
19. Bakuchyadi taila
20. Balachaturbhadra choorna
21. Balarishata**
22. Bala taila*
23. Balarogan*
24. Basantakusumakara rasa**
25. Bhunimbadi Kawth*
26. Bhuvaneshwara vati
27. Bilwa tail
28. Bilwa tail choorna
29. Bola parpati**
30. Bolabaddha rasa8
31. Brahmi ghrita
32. Brihad gangadhara choorna
33. Brihallokanath rasa*
34. Brihad vatachintamani rasa**
35. Chandanadi choorna
36. Chandanasava**
37. Chandrakala rasa*
38. Chandraprabha vati
39. Chandrodaya varti
40. Changeri ghrita*
41. Chhagaladya ghrita*
42. Chhardiripu rasa*
43. Chitraka-haritaki
44. Chitrakadi vati*
45. Chopachinyadi choorna*
46. Dadimadi choorna**
47. Dasham0la choorna
48. Dashanga lepa
49. Dashmoolaristha**
50. Dhanyapanchaka choorna
51. Dhatakyadi choorna
52. Dhatri lauha*
53. Drakshasava**
54. Durlabho rasa*
55. Ekangaveera rasa*
56. Eladi gutika*
57. Erandabhrista Haritaki**
58. Eranda taila*
59. Gandhaka rasayana
60. Gandhakadya malaham
61. Ghoti choorna
62. Godanti bhasma
63. Godanti yoga*
64. Gokshuradi guggulu
65. Guduchi satwa**
66. Guduchighana vati
67. Haridra khanda
68. Haridra choorna
69. Hariyo malaham
70. Hinwadi taila
71. Hingwadi vati
72. Hingwashtaka choorna
73. Hiridayaarnava rasa*
74. Ichchabhedi rasa*
75. Irimedadi taila**
76. Jatiphaladi ghrita
77. Jatiphaladi vati
78. Jatyadi ghrita**
79. Jatyadi taila*
80. Jeeraqadyarishta**
81. Jeevan vindu
82. Jesthavasadi choorna
83. Jesthalavangadi choorna*
84. Jwarankkhusha rasa**
85. Kaishora guggulu
86. Kakubhadi choorna
87. Kalyanaka ghrita
88. Kamadhudua rasa
89. Kamalari vati

90. Kanakasundara rasa**
91. Kanakasava**
92. Kanchanara guggulu
93. Kanakyana gutika**
94. Kantakayravaleha*
95. Karanja taila*
96. Karpura rasa**
97. Kasantaka vati*
98. Kasisabhasma**
99. Kasisadi taila**
100. Kasturadi vati**
101. Kasturibhushan**
102. Katphaladi nasya
103. Kaudi Bhasma
104. Khadiradi vati
105. Khadirarishta**
106. Krimighatini vati
107. Krimiharayoga
108. Krimikuthar rasa*
109. Kshara taila**
110. Kukkutandatwak bhasma
111. Kumarakalyanarasa**
112. Kumaryasava no.-3**
113. Kumaryasava**
114. Kupuradi varti
115. Kusthadi manjan
116. Kutajaghana vati
117. Kutajarishta**
118. Kutajashtaka vati**
119. Kutajavaleha **
120. Laghu sutashekhara rasa*
121. Laksha guggulu
122. Laksha chakrika
123. Lasunadi vati
124. Lasunadya ghrita**
125. Lauha bhasma**
126. Lavangadi vati
127. Lavanabhaskara choorna
128. Lohasava**
129. Loknath rasa
130. Mahavata Bidhwansan rasa*
131. Mahajwarankusha rasa*
132. Mahalaxmivilasa rasa**
133. Mahamanjishthadyarishta**
134. Mahamasha taila*
135. Mahanarayan taila*
136. Mahanarayan taila*
137. Maharasnadikwatha**
138. Mahashankha vati
139. Mahasudarshana chooma*
140. Mahavatavidhwasana rasa **
141. Mahayogaraja guggulu*
142. Mahavishagarbha taila**
143. Makaradhwaja**
144. Mandoorbhasma
145. Marichadi taila**
146. Medoharavati*
147. Mimiya
148. Moti Bhasma**
149. Mrigamadasava*
150. Mritasanjivani sura**
151. Mirtunjayarasa*
152. Mugdha rasa**
153. Mukta pisti**
154. Muktashukti bhasma/pisti
155. Mushali choorna
156. Naram talai*
157. Nardiya laxmivilass rasa*
158. Navarasa**
159. Navayasa lauha/Mandoora
160. Netra bindu
161. Nimbadi choorna*
162. Nimbada taila
163. Nirgundi taila*
164. Nityananda rasa*
165. Panchagavya ghrita*
166. Panchaguna taila*
167. Panchasakar choorna
168. Patragasava**
169. Peedahar malaham
170. Phalaghrita*
171. Pittaghnavati
172. Pravala bhasma*
173. Parvala pancharit*
174. Prabhakar vati*
175. Pradarantaka rasa*
176. Pranada gutika*
177. Pratapalankeshwara rasa*
178. Pratishtayahara vati
179. Punarnavati mandooraa
180. Punarnavashtaka choorna**
181. Puranawadyarista**

182. Pushyanuga choorna
183. Raja parvartani vati
184. Raktalavangadi choorna
185. Raktapittantaka lauha**
186. Ramavana rasa*
187. Rasa mainikya*
188. Rasanjana
189. Rasapipari**
190. Rasaraja rasa**
191. Rasasindura*
192. Rasnadi guggulu
193. Rasnasapta guggulu*
194. Rato vari*
195. Rohitakadi choorna
196. Saindhavadi taila
197. Samshamani vati*
198. Sandeepan choorna
199. Saptamrita lauha*
200. Saptavimshati guggulu*
201. Samshamani vati*
202. Sandeepan choorna
203. Saptamrita lauha*
204. Saptavimshati guggulu**
205. Saraswat choorna
206. Saraswatarishta**
207. Sarivadi vati*
208. Sarivadyasava**
209. Sarpagandhaghan vati
210. Subhagya vati*
211. Samudradi choorna
212. Seto malham
213. Shadbindhu taila
214. Shankha bhasma
215. Shatapushpadi choorna
216. Shatavari choorna
217. Sheeta rasa
218. Shiddhapraneshwar rasa*
219. Shilajatwadi vati*
220. Shirahsooladi bijra rasa
221. Shirishadi choorna
222. Shoolaharana Yoga*
223. Shringa bhasma*
224. Shringarabhraka**
225. Shudda shilajit
226. Shwasa-kasachintamani rasa*
227. Shwasakuthara rasa*
228. Shweeta parpati
229. Sinhanada guggulu*
230. Sitopaladi choorna
231. Slipadagajakeshri rasa*
232. Smiritisagar rasa*
233. Somalata choorna
234. Somaraji taila**
235. Sootashekharas rasa
236. Sphatika bhasma**
237. Sudarshna choorna
238. Suparipaka
239. Swamamakshika bhasma*
240. Swarnavanga*
241. Talisadi choorna*
242. Tamrachoodadi taila
243. Tankana bhasma
244. Tapaswini vati
245. Tapyadi lauha**
246. Tara mandoora
247. Trayodashanga guggulu
248. Tribhuvankirti rasa*
249. Trikatu choorna
250. Trinapanchamoola kwatha*
251. Triphala choorna
252. Ttiphala ghrita
253. Triphala guggulu
254. Trisaptaka choorna
255. Trivanga bhasma*
256. Tugaraka taila**
257. Unmadgajakeshari rasa**
258. Vaishwanara choorna*
259. Vidangadi lauha**
260. Vidangasava**/Vidangarishta**
261. Vipadikanta malaham
262. Vishamajwarahara lauha**
263. Vishatindukavati**
264. vyoshadi vati
265. Yakritplihari lauha**
266. Yavakshara*
267. Yogaraj guggulu

* For DAHC and ZAD level

** Only for Hospital level

Essential Ayurveda Drug Lists (single and compound formulations) are selected for following groups of disorders/ diseases

1. Digestive/Carminative
2. Antidiarrhoeal
3. Antiepileptics
4. Drugs for Burns
5. Antacids
6. Drugs for Haemorrhoids Diseases
7. Drugs for Conjunctivitis
8. Durgs for Trauma, Internal Injuries
9. Antiarthritis
10. Psychotherapeutic Drugs
11. Durgs for Ear Problems
12. Drugs for jaundice
13. Anti cough
14. Anti helminthics
15. Goitre/Lymphadenitis
16. Drugs for Sciatica
17. Drugs for dermatological Problems
18. Antipyretics
19. Anti-anaemic/Haematinics
20. Anticatarrhal/Nasal disorders
21. Anti dysentric
22. Durgs for Paralysis
23. Drugs for Malaneutritiion
24. Antidiabetic
25. Drugs for Oral Problems
26. Drugs for Dental diseases
27. Drugs for Urinary Diseases
28. Drugs for Hepato billiary disorders
29. Drugs for
Dysmenorrhoea/Amenorrhoea
30. Anti-hypertensive/Normotensive
31. Drugs for Menorrhagia
32. Drugs for Haemoptysis/Bleeding
33. Drugs for Gout
34. Laxatives
35. Anti-malarial
36. Anti-allergic Anti-urticarial
37. Drugs for Headache
38. Anti-spasmodics
39. Drugs for Oedema/Anasarca

40. Antiasthmatics
41. Drugs for Leucoderma
42. Antifilarial/Elephantiasis
43. Antileucorrhoeal
44. Drugs for Puerperium
45. Drugs for Cardiac problems
46. Antiemetc
47. Drugs for Hiccough
48. Drugs for Measeals
49. Drugs for Obesity
50. Analgesics
51. Wounds
52. Drugs for cracks/fissures

Appendix-5

Department of Ayurveda has published Ayurveda formulations including following Preparation/ formulations*

1. Churna (Powder)

1. Ajamodadi Churna
2. Ashvagahdha Churna
3. Arjun Churna
4. Avipattikar Churna
5. Ashwadhadi Churna
6. Aamalaki Churna
7. Kakubhadi Churna
8. Katphaladi Churna
9. Chandanadi Churna
10. Jyesthalavangadi Churna
11. Jyesthasvasadi Churna
12. Talisadi Churna
13. Trikatu Churna
14. Triphala Churna
15. Dashamula Churna
16. Dadimastak Churna
17. Dugghabardhan Churna
18. Dhanaya Panchak Churna
19. narach Churna
20. Paoladi Churna
21. Palashabijadi Churna
22. Panchaskara Churna
23. Punarnava Churna
24. Pippalyadhya Churna
25. Pippalyadi Churna
26. Punarnavadi Churna
27. Pushyanuga Churna
28. Madhumehari Churna
29. Sudarshan Churna
30. Mukhasugandhakar Churna
31. Musali Churna
32. Mutravirechan Churna
33. Yavanikhanda Churna
34. Yashtimadhu Churna
35. Raktalarangadi Churna
36. Rohitakyadi Churna

37. Labangadi Churna
38. Vaskar Lavan Churna
39. Vachadhya Churna
40. BAAla Chaturbhadra Churna
41. Bilvadi Churna
42. Brihsgangadhar Churna
43. Vasa Churna
44. Bidangadi Churna
45. Baishavanar Churna
46. Sivaksharpancha Churna
47. Shunthyadi Churna
48. Shringyadi Churna
49. Samundradi Churna
50. Sarswat Churna
51. Siopaladi Churna
52. Haritakyadi Churna
53. Haritaki Churna
54. Hingawashtak Churna
55. Hingwadi Churna
56. Haridradi Churna

2. Vati (pills and tablet)

Preparation/formulations

1. Agnitundi Vati
2. Ajamodafi Vataka
3. Abhaya Vati
4. Abhsyadi Guti
5. Amrita Vati
6. Arshoghna Vati
7. Amalakyadi Gutika
8. Amavatari Vati
9. Arogyavardhani Vati
10. Eladi
11. Kanakaprabha Vati
12. Kasturadi Vati
13. Kankayan Gutika
14. Kamalari Vati
15. Kasantak Vati
16. Kutajaghan Vati
17. Kutajatak Vati
18. Krimihara Yoga
19. Krimighatini Ghutika
20. Krimighatini Vatika
21. Kshara Ghutika
22. Khadiradi Vati

* Until September 2007

23. Gandhaka Vati
24. Chandanadi Vati
25. Chandrakala Vati
26. Chandraprabha Vati
27. Chitraka Gutika
28. Chitrakadi Vati
29. Jatiphaladi Vati
30. Tapasvini Vati
31. Pachan Tablet
32. Pittaghana Vati
33. Pratishtyayahara Vati
34. Prabhakara Vati
35. Prananda Gutika
36. Plihari Vatika
37. Bidalaka Vati
38. Bilwadi Gutika
39. Brahmi Vati
40. Bhuvaneshvara Vati
41. Mandoora Vataka
42. Marichadi Vati
43. Mahashankha Vati
44. Mritasanjivani Vati
45. Mehamudgra Vatika
46. Rajahpravartani Vati
47. Rasadi Vati
48. Rasonadi Vati
49. Raja Vati
50. Rato Vari
51. Lavangadi Vati
52. Lakshadi Chakrika
53. Vishatindukadi Vati
54. Vedanahara Tablet
55. Vyoshadi Vati
56. Shankha Vati
57. Shilajatwadi Vati
58. Sheeta Rasa
59. Shulavajrini Vati
60. Sanjivani Vati
61. Santanbandha Vati
62. Saptaparnaghana Vati
63. Samshamani Vati No.1
64. Samshamani Vati No.2
65. Sarpaganduaghana Vati
66. Sarivadi Vati
67. Suryaprabha Vati
68. Saubhagya Vati

69. Hingwadhya Vati

3 Bhasma and Pishti Preparations -

1. Abhrak Bhasma
2. Akik Bhasma
3. Akik Pishti
4. Kaparda Bhasma
5. Kasis Bhasma
6. Kukkutandatwak Bhasma
7. Kharpar Bhasma
8. Godanti Bhasma
9. Yasada Bhasma
10. Jaharmohera khatai Pishti
11. Tamra Bhasma
12. Tankana Bhasma
13. Trinakantamani Pishti
14. Trivanga Bhasma
15. Dugdhapasan Pisti
16. Naga Bhasma
17. Nilamani Bhasma
18. Pravala Bhasma
19. Pravala Pishti
20. Pushparag Pishti
21. Vanga Bhasma
22. Vajra(Heerak) Bhasma
23. Vaikranta Bhasma
24. Mandoora Bhasma
25. Malla Bhasma
26. Mayurapuchha Bhasma
27. Manikya Pishti
27. Mukta Bhasma
28. Mukta Pishti
29. Muktashukti Bhasma
30. Muktashukti Pishti
31. Raupya(Rajat) Bhasma
32. Raupyamakshika Bhasma
33. Lauha Bhasma
34. Shankha Bhasma
35. Sphatika Bhasma
36. Shringa Bhasma
37. Hajarul-Jahud Bhasma
38. Swarna Bhasma
39. Swarnamakshika Bhasma
40. Harital Bhasma

4. Asava-Arishta Preparations:

1. Abhayarishta
2. Amritarishta
3. Aravindsava
4. Arjunarishta
5. Ashokarishta
6. Ashwagandharishta
7. Ahipneasava
8. Ushirasava
9. Kanakasava
10. Karpurasava
11. Kutajarishta
12. Kumaryasava
13. Khadirarishta
14. Chandanasava
15. Jirakadyarishta
16. Dashamoolarishta
17. Deveadravyarishta
18. Draksharishta
19. Drakshasava
20. Patrangasava
21. Pippalyadyasava
22. Punarnavadyarishta
23. Punarnavasava
24. Babbuladyarishta
25. Balarishta
26. Bhringarajasava
27. Madhukasava
28. Mahamanjishthadyarishta
29. Musgtakarishtha
30. Mrigamadasava
31. Mritasanjivani sura
32. Rodhasava/Lodhrasava
33. Rohitakarishtha
34. Lohasava
35. Vasakasava/Vasarishtha
36. Vidangarishta
37. Shrikhandasava
38. Saraswatarishta
39. Sarivadyasava

5. Kupipakwa Rasayana Preparation

1. Ashtamurti Rasa
2. Ashtavakra Rasa
3. Krishnamanikya Rasa
4. Tamra sindoora
5. Tala sindoora
6. Panchaoota Rasa
7. Muaradhawaja
8. Mala sindoor
9. Manikaya Rasas
10. Rajata sindoor
11. Rasakarpooa
12. Rasapushpa
13. Rasasindoor
14. Vyadhiharana Rasa
15. Sameerapannage Rasa
16. Siddha Makaradhawaja
17. Swarnavanga
18. Swarnasindoor
19. Haragauri Rasa

6. Prapati Preparations:

1. Abhrak Parpati
2. Ashtamrit Parpati Parpati
3. Gagana Parpati Parpati
4. Tamra Parpati Parpati
5. Panchamrit Parpati
6. Pranda Parpati
7. Bola Parpati Parpati Parpati
8. Mandoora Parpati
9. Mani Parpati Parpati
10. Malla Parpati
11. Rasa Parpati Parpati
12. Lauha Parpati
13. Vijaya Parpati
14. Shweta Parpati
15. Sarveshwar Parpati
16. Swarna Parpati

1. Rationale:

Ayurveda is a national method of therapy/treatment in Nepal. Like the Heritage of Himalayas and water resources, the original practices, manuscripts, records of Ayurvedic treatment and medicinal use of abundant herbs has taken an important role in Nepal. With a view to effectively towards Ayurvedic treatment, this Ayurveda Health Policy has been made.

3. Objective:

For the accomplishment of the objectives identified by the National Health Policy, 2048 (1992), the speciality of Ayurvedic treatment which has been preserving health and curing diseases from ancient times is timely. Its principal objectives is to improve health condition of mass people and make them self-reliant on health service by officially and utmostly utilizing local medicinal herbs and medical entities which are easily available and can be used.

4. Form of Ayurvedic Treatment Service.

The form of science of Ayurvedic treatment is based on 'Doshadushya' principle, special treatment technique and the utilization of the available local herbs, minerals and Jantab entities. Ayurvedic treatment will be developed as a special treatment method in the country in a phase-wise manner.

3.1 The present organization of the Department of Ayurveda will be reformed as required and various sections will be operated and consolidated. Coordinative procedures will be followed with other departments and units under the Ministry of Health. The Department will co-ordinate the activities of governmental and non-governmental, national and international organizations relating to Ayurvedic treatment service, educational research and formation of medicines. Units will be established under the Department also to develop and expand the service of natural therapy, homoeopathy as well as other alternative systems of therapy.

3.2 The Ayurvedic Hospital Naradevi, existing in central level, will be upgraded to 100 beds at present, and operated as a hospital providing specific Ayurvedic service by establishing different departments of Ayurveda. This hospital will be operated under a development board.

3.3 In harmony with the policy to grant autonomy to and professionalize the existing Singhadurbar Vaidhyakhana, which has been approved by His Majesty's Government in principle, the preparation/formation and supply of Ayurvedic medicines will be well-managed and made effective, and there shall also be helped strength national economy by producing qualitative medicines of international standards, and promoting exports.

3.4 The existing Ayurvedic Hospital Dang, with 15 beds, will be converted into a Mid-

related with the herbals, so as to maintain standard in domestic trade and export to foreign countries by identifying genuine herbals.

5.3 Governmental and non-governmental Ayurvedic medicine manufacturing companies established or to be established in the country will be encouraged to manufacture qualitative medicines on the basis of 'Good Manufacturing Practice' and imports will be reduced and export promoted. For this purpose, co-ordination will be made with the Department of Drug Administration as well as with related governmental bodies.

5.4 One Ayurvedic Medicine Examination Committee and Laboratory will be developed for maintaining the quality of Ayurvedic Medicines to be imported from abroad or prepared in the country as well as for other technical works.

5.5 Nepal Ayurveda Pharmacopoeia will be collected and published in a timely manner.

6. Ayurvedic education and manpower development.

6.1 Taking into consideration of paramount role of qualified, efficient and duty-bound manpower in the technical field like treatment, a National Ayurvedic Institute, equipped with necessary equipments as well as a research centre, will be established under Tribhuvan University, for enhancing and carrying on further development in effective production of Ayurvedic manpower carrying out functions being dedicated to the field of Ayurveda and in standard of quality of its various dimensions (education, health, and preparation of medicines).

6.2 Programme of producing bachelor-level manpower in Ayurveda will be conducted so that physical infrastructure will be developed in harmony with the objective to provide master level and Ph.D. level Ayurvedic education in the future.

6.3 As high level manpower is required for the protection and overall development of Ayurveda in the context of providing the people with cheap, easily accessible and relatively without side-effect treatment service by having utmost mobilization of the natural resources of the country, the process of production of such high level manpower will be continuously operated without confining such manpower to the number required for His Majesty's Government.

6.4 Middle level and basic level Ayurvedic manpower will be produced, and educational programmes will be launched for that purpose.

6.5 Native and foreign citizens who are desirous of pursuing introductory knowledge of Ayurvedic medicines will be provided with an opportunity to study.

6.6 Arrangements will be made for study and training to the manpower that can not be produced within the country in foreign countries as per necessity.

6.7 Arrangements will be made for in service refresher training and study tours.

7. Management of Ayurvedic Manpower

7.1 Various organizational structures under the Ayurveda Group will be made responsive and service-oriented for consolidation of management aspect of Ayurvedic manpower.

7.2 Ayurvedic doctors and Ayurvedic health workers will be provided with the same allowances and special facilities as doctors or health workers of other systems are receiving or will receive.

8. Ayurvedic Research

8.1 there will be established an Ayurvedic Research Institute furnished with the required equipment, for research of international standard in matters related with the use of Ayurvedic medicines and entities and the Ayurvedic treatment.

8.2 The Ayurvedic manuscripts available in the country will be preserved, data bank, reference library will be established, and timeliness reference materials will be published.

8.3 Magazines pertaining to the protection, farming, promotion, utility method, environmental education, of the herbs available in the country will be published, and national records thereof, prepared.

8.4 There will be launched a campaign of keeping protection and relevancy of the knowledge of traditional health workers perpetual.

8.5 For the above works, co-ordination will be maintained with Ayurveda Research Institute, National Ayurvedic Institute, Ayurvedaic Hospitals, governmental and non-governmental Ayurvedic Medicine Companies and other related research institutes.

9. Provision of Resource Mobilization:

Assistance of native and foreign donor agencies will be made available so as to provide financial support to various programmes of Ayurveda, to mobilize the acquired financial source by promoting export of herbs and prepared medicines and to assist in the implementation of the said programme.

10. Nepal Ayurvedic Medical Council:

There will be established a Nepal Ayurveda Medical Council in national level for fixing necessary standards of Ayurvedic education and service, registration of doctors, well arrangement of fixation, monitoring and evaluation of their jurisdiction.

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