country drug store :

~~Medicinal Plants : Trade~~ Organization

Trading Plants :

Trading

TRADING HERBS

TRADE IN MEDICINAL PLANTS : A ~~study~~ study

~~Medicinal plants~~ &

~~Medicinal product~~ ,

Medicinal plants, herbs, roots have ~~always~~ for long been highly valued commodities traded over considerable distances. ~~Petter~~ ——

~~The commodities market in~~ examples.

Given ~~with the~~ growing interest of multi-national drug firms, in ethno pharmacological products and recent changes impelled by GATT ~~in~~, ~~the~~ there is an urgent need to map and understand the trade networks in India of ~~et our bar~~ medicinal herbs, plants. who collects / scouts for herbs in hills ? How are they.

How is market intelligence gathered ?

~~What~~ market forces, culture shape what cultural skills are required.

How can this knowledge ~~ultimate~~ be used in enhancing our national wealth considering the current demand world-wide

Are there any natural indicators of threatened medicinal plants? Who knows them? How? What do suppliers do when some products are extinct / difficult to get / environment.

~~My In this project~~ I propose to study the trade networks of ~~medi~~ Ayurvedic / Unani / Siddha materia medica.

~~What~~ I shall begin this research by xx

logistics of Ayurveda
inventory control
14 essential ingredients

Architecture of Trade Networks in Traditional Indian Medical Materials

Introduction:

The objectives of our study are two-fold: 1) to trace the trade networks between the ecological niches in which ethno-pharmacological products originate and the patients consuming such traditional Indian medicines. 2) to detail and explain the architecture of these trade networks.

We are all familiar with white-collar, neck-tied, leather bag hauling medical representatives calling on doctors distributing glossy brochures and free samples of allopathic drugs developed by multi-national pharmaceutical giants. On the other hand, we know little about how traditional Indian practioners acquire and prepare medicines to meet the health-care needs of the vast majority of the Indian population. Even as the traditional health care systems of India such as Ayurveda, Siddha, and folk medicine continue to be pervasive and popular, they elude scholarly scrutiny. How, for instance, one may wonder, are the ten essential ingredients of such a common Ayurvedic drug as *Dashamularishtam* gathered, transported, processed, prescribed and retailed? How does the invisible hand of the market articulate the supply of medicinal plants? Is the pricing of such drugs sensitive to environmental degradation? How does the trade network embody pharmaceutical knowledge in traditional Indian medical systems?

Two kinds of imperatives drive our study of the trade networks. Firstly, our earlier field research indicates that increasing pressures on the environment and ecological degradation adversely affect regular supplies of essential medicinal ingredients. In addition, several other plants and herbs with potential medicinal use are also being threatened with extinction. In short, the loss of bio-diversity threatens the very basis of traditional health care systems in India.

Ayurveda - people · were healthy
we use for Ayurveda -
only now everybody is sick
now there is a shortage because
more people sick

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trade-barter has been around
for a long time - separate
channel,
can't say it could have been
(Tamil) ~~trade~~ available then
(arumpalattai, camphor (china)
all imported

Kramboy - zanzibar (now ceylon)

dalchini: nutmeg (imported)

chittamattai - (tamil)

Atramatum (fruit container)

Even as one witnesses the disaappearance of valuable ecological niches, one encounters a growing realization amongst international bio-medical researchers of the limitations and difficulties of industrial synthesis of drugs. Paralleling this belated enlightenment is a growing demand in the industrial nations for alternative therapeutic products. For instance, export of traditional Chinese medicines is becoming a significant source of income for the Peoples Republic of China. Furthermore, recent advances in bio-technology expands and simultaneously regiments the range of medically useful plants and herbs. Last but not the least important of these global trends compelling our research are the emerging intellectual property and trade regimes. Considering the growth of multinational capital-flows in ethnopharmacological research and recent structural changes impelled by GATT, there is an urgent need to map and understand the trade networks in Indian pharmacopeia. We believe that the knowledge gained from such a study will help conserve our natural heritage, preserve bio-diversity and even enhance national wealth in a post-GATT world.

Historically, medicinal plants and herbs have been highly valued commodities traded over considerable distances. ex. Today, the trade network seems to be manned by an intricate web of gatherers, contractors, dealers, wholesalers, retailers, and doctors spread all over the country. Precious little is known about these various constituents of the network. We propose to map this network through systematic field research.

Once the network is delineated, we propose to topologically model the architecture of the network. The trade network is, of course, a vital and complex web of living individuals with diverse stories and interests, historically shaped in specific cultural mileus. Through a study of the cultural architecture of a such complex living network we expect to gain insights into the design and structure of health care delivery systems of traditional India.

65 yrs - no salvation / motivate people
Economics not right for organized trader
sporadic collection better.

Offtake of Ayurvedic ~~pla~~ medicines.

Development must be comprehensive
child's stomach Bombay market

exporters - one or 2 drugs only
ginger - pepper
For Ayurveda you need a whole lot.
MOTIVATE PEOPLE for Ayurveda.

1944 - imports 5-10,000 | Kottakal: growth - 60-70 cr.
1994 3-5 crores

Hamdard — Yunani.

Begin with consumer activity

Tissue culture: guggula -
Can you consume it?
Swarnamukhi
Senna leaves; semocite active
principle - Madurai factory
Tirunelveli - only trade - grown

begin with consumer, producer
trade, not just drug.

15% - 25% only herbs few drug

we just start. what can
one man do?
Nana have always taken Ayurveda
"I" will it is the same way.
all the knowledge of home
remedies have gone away.
People wrong belief at home
remedies.

Ay. it has to be made to
be industrialized -
for small society -
no necessity -
1905 Kottakal - Trissur
Shastri - Venkatraman college

SECTION II:

Our intial studies have indicated that four categories of materials circulate in the network. Some significant pharmacological products are widely grown and thus trade in materials such as is over short distances. A second type of medicinal plant is critical for health care but can be grown only in select environments. Such materials are traded over considerable distances. A third category of medicinal plants are minor materia medica. These materials may not all be locally available and thus may be traded over considerable distance. The volume of trade in such minor materia medica is, comparatively speaking, not very high. A fourth category of material grows widely but is consumed in select localities or is gathered in selected ports for export. Thus the ecology of supply and the economy of demand in traditional medicines shapes the architecture of the network. Our preliminary research suggests a distributed network. We propose to research the response of such a distributed network to the rapdily increasing outreach of what Wallerstein calls the World-System.

METHOD OF RESEARCH:

As a first step, we propose to interview several representative constituents of the medical trade network.

Then we will catalog the full range and volume of medical products circulated in the network. After having traced the principal contours of the network, we will select a few drugs for detailed case studies. Using the case studies, we will map the entire network on a geographic information system.

Headhead : you ho wants for Tailams
Modakatthan green gandhan
Lehyam - can't use fresh - fupi
permanent

Custom Raw-materials :
Small quantities only we
ask - low demand :
70-80 %. Malagai Saman
puli sakkai etc.
honey, silver & gold
Its Bosh !
herbal - only small city

20-10 %. 300-400 items
western shats / Nepal / USA
big Nepal → Calcutta → B'bay
some MP (10-20 item maybe)
Kirachitam
Sushilam Dr. must come from Nepal

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some are not available —
artificial scarcity
15 %. - 20 %. herbal army
Besha pannalane -

Nobody to take concerted effort
Sakkarai - consumable articles -
aska Sakkarai - Om anna —

IMPEDIMENTS :- So yrs :
In what way are you interested ? :
in what way are you going to
Contribute ?
STUDY of MEDICINAL PLANTS

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profitable trade must
it should be marketed . what do
you have ?
users consumption
No one's has done it.
Anai's Ramanan Ramachandran —
Because of influence of modern medicine
Counter paracitamol —
Create awareness among people —
just talk — no Concrete measures
to Ayurveda .

b) What is the dynamics of the mechanism how are these componets related by supply and demand mechanisms

supply side

natural population dynamics: ecological niche

demand side

who are the drug makers

home medicine makers

geographic component. MAP; unified model:

model of resource flows

c) Cultural architecutre

topoligcal, economic, epistemological, social, cultural, physical.. .layers of distributed network

bioprospecting; you need clues west looking to ethnopharmocology

SECTION III

the trade network is vital, it is at the same time difficult to detail, let alone comprehend because it is organized on meta-principles which encourages and provides ample space for local innovation .

While the whole system is organized on the tridosha-triguna-triphala principles,

decentralized setup due to metaprinciples

you may just crack the whole thing

the quack may be just a good performer and nothing more

which fellow has the insights

County medicine stores:

how does the network operate?

Botanical survey of India — Lucknow

Vedam —
1) all have been identified
2) utility: from the day India was born — home remedies — times immemorial — based on what knowledge people will buy from bazaar.

now demand for home remedies is decreased.

→ Kashayam potential / decay.

— everybody is lazy

only the desperate come, after having tried all system.

Lamp secrets — nothing — they are not doing it.
[illegible] — 3 offered

MFP

Ayurvedic industry — small qties.

we drug as it —

no fraction —

Ras 5 fraction verys

when we cannot identify five

eg. ceases to be A.

no isolation

Patented drug

vs Shastric drug → . Even A industry do patent drug

medopharma

570 patents for shastric drug.

scheduled drug: cumbersome procedure

Scientists that bent of mind, no

generic drugs: same problem:

45 items / if there is no one item can't make it.

they buy in bulk

Sukku — they buy up everything in cochin / export /

not organized trade /

export

wholesalers — 500-600 materials for indian industry (A)

we created (unknown) the headloader networks.

distributed network

how is the network articulated

local innovation . centralized authroity lack create

web

we have quacks and maybe even geniuse..

inside and outside micro-macro cosm

n patterns of resource flow:

local-local

local-global

global-local

local local grey

ecological history

wholesalers sources and supply map

manufacturers large and small

collection area Mudumalai

Kalpasam specialized and local product.

Policy implication: sustainable management of natural pharmacological resources through sensitizing trade networks.

Procurement

fresh ⟷ dry

List of fresh drugs

1) Tamarind leaves
2)

List of wholesale distributors

1) Shobakanth Das.

— cultivation of herbs - Feral herbs

root is the most potent form/destructive

IV CULTURES ?

A. Arboriculture

IV A 1 Forest plantations (specify)

A Tea

Coffee

Coconut

Mixed orchards

Other mono-culture plantations (specify)

B. Agriculture and pastoralism

Irrigated agriculture

Dry land agriculture

Vegetable culture ← Horticulture / Vegetable growing.

Traditional ~~culture~~ agriculture and cultivars ←

Cattle penning sites

Grazing lands

Include human communities & modes of resource use.

Artificial lakes — spatial scales
Habitation — spatial scales
Mining

Probability of transformation

Man-made

Natural

- Transformation of natural landscape element/ into manmade landscape elements
- Kind of human (Agencies) intervention responsible for transformation
- Time scale of intervention
- Human communities/ responsible for various kinds interventions.

~~Plant species~~ Physiognomy of vegetation/ plant species/ associated with different kinds of natural as well as man-made landscape elements

- Different modes of resource use would be related to different kinds of human agencies that carry out different kinds of interventions on different time scale

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- Spatial elements: minwatersheds
- Natural landscape elements
- Human communities + corporate entities
- Kinds of interventions
- Transformations.
- Transformed landscape elements with their physiognomy/species composition