

CHAPTER 9

GENERAL DISCUSSION

General Discussion

The ethnobotanical survey among the tribe *Mech* living the Duars region of West Bengal and in the adjacent part of Assam was conducted during 2004 – 2009 following standard methodology as suggested by Jain (1964, 1965b, 1967, 1987, 1995), Ghosh (2006), Tag (2007) and others. The survey covered wide aspects of *Mech* traditional life style and recorded the plants scientifically and all the voucher specimens will be deposited at NBU-Herbarium with a duplicate set to the CAL.

9.1. Taxonomic and Habit Group Classifications

The present ethnobotanical survey has recorded the uses of a total of 271 species of plants covering 223 genera and 93 families of which only four species are pteridophytic. Of the 267 species of Magnoliophyta, 215 are belonging to Magnoliopsida and 52 are under Liliopsida (Table 9.1).

Table 9.1. Numerical distribution of recorded taxa

Taxa	Family	Genus	Species
Pteridophyta	4	4	4
Magnoliophyta	89	119	267
Magnoliopsida	71	177	215
Liliopsida	18	42	52
TOTAL:	93	223	271

Analysis of the habit groups for the recorded plants showed the usefulness of different forms of plants as shown in Table 9.2.

Table 9.2. Habit group representation of recorded species of ethnobotanical plants

Habit	Family	Genus	Species
Trees	37	62	73
Shrubs	22	46	52
Climbers	13	24	35
Herbs	41	82	90
Geophytes	9	17	20
Epiphyte	1	1	1
TOTAL:			271

9.2. Areas Covered

To understand the *Mech* ethnobotany in a better way, different aspects of their life style has been observed from different angles like:

- i. Food
- ii. Fodder
- iii. Medicine
- iv. Other domestic needs
- v. Socio-religious
- vi. Socio-cultural
- vii. Birth-Marriage & Death, etc.

The collected 271 species are used in various ways. There are many species those are used in various manners and were recorded under different categories of uses. Such utilitarian grouping of the recorded *Mech* ethnobotanical plants has been presented in Table 9.3.

Table 9.3. Utility based classification of recorded *Mech* ethnobotanical plants

Category of uses	Taxa used		
	Family	Genera	Species
Edible	61	101	121
Fodder plants	28	52	61
Domestic uses	28	38	39
Medicinal Plants used in solitary	45	66	74
Medicinal Plants in formulae	49	76	83
Veterinary medicinal	21	28	29
Poisonous plants	11	13	13
Preparation of <i>Jou</i>	6	6	6
Ornamental & Decorative plants	15	17	18
Religious plants	19	31	32
Folklore related plants	8	11	11

9.2.1. Edible Plants: At least 121 species (covering 101 genera and 61 families) of plants are collected from the local habitat are collected by the people of *Mech* community to use as their own food. These include three species of pteridophytes - *Diplazium esculentum*, *Helminthostachys zeylanica* and *Marsilea minuta*. Considering the edible parts, it is found that almost all parts of different plants are edible. Some plants like *Colocasia* spp. rhizome, petiole and inflorescence are prepared in different manner for consumption. They consume even the inflorescence of *Eichhornia crassipes*, for which there was no previous record. Some of the plants they prefer to eat are abundant in the region and are quite tasty. Some

such plants like *Amaranthus lividus*, *Amaranthus spinosus*, *Amaranthus viridis*, *Alternanthera sessilis*, *Deeringia amaranthoides*, *Coccinia grandis*, *Bacopa monnieri*, *Centella asiatica*, *Chenopodium album*, *Commelina benghalensis*, *Drymaria diandra*, *Enydra fluctuans*, *Glinus oppositifolius*, *Ipomoea aquatica*, *Leucas indica*, *Oldenlandia corymbosa*, *Oroxylum indicum*, *Polycarpon prostratum*, *Polygonum plebeium*, *Portulaca oleracea*, etc. Fruits of some plants like *Coccinia grandis*, *Dillenia indica*, *Dillenia pentagyna*, *Diospyros malabarica*, *Diplocyclos palmatus*, *Duchesnea indica*, *Ehretia serrata*, *Elaeocarpus floribundus*, *Ficus hispida*, *Flacourtia jangomas*, etc are quite common and are also preferred ones. These trees are quite frequently available in the forests of Duars region. Quite often most of these fruits are also marketed. Some of these plants are also edible in developed societies. So, the plants they consume are of mostly agreeable qualities and their availability in different types of vegetation is quite good. At the same time, edible parts of different recorded species are available in different seasons of the year to meet up the food-requirement of the people in remote *Mech* villages.

Just the collection of edible plant parts is not enough. They need to cook their food. They are having their own style of cooking mostly using local ingredients. Six such *Mech* preparations recorded here along with their detailed recipes and methods of preparation. Whatever may be the taste, they like their traditional preparations. And, *Ondla* is must in marriage ceremonies which can be both vegetarian and non-vegetarian preparations. In non-vegetarian *Ondla* they add pork or chicken. This rice-powder based preparation is quite tasty and can be tried outside the *Mech* community too! But, now-a-days, they are quickly learning the Bengali type preparations endangering their own cuisines.

9.2.2. Fodder Plants: Though cow is the most important domestic animal in the *Mech* society, but a number of other animals are regularly reared by them. These include buffalo, goat, pig, fowls, ducks, dogs, and cats. They need to collect fodder from the vegetation for three animals mainly, cows, buffalos and goats. Analysis of the collected fodder led to the record of a total of 61 species of plants covering 52 genera from 28 families. These are all angiospermic plants. Except paddy-straw, they never store any fodder for future use. Most of these plants are growing in wild in their adjacent vegetation and every day they spend some time for the collection of fresh fodder. Interestingly, though climbers are abundant in the local vegetation but only one species (*Mikania micrantha*) of climber have been recorded from the collected fodders. Again, out of the remaining 60, 25 are trees and 35 are herbs. Number of trees is quite high and some plants like *Aegle marmelos*, *Alstonia scholaris*, *Diospyros malabarica*, *Elaeocarpus floribundus*, *Gmelina arborea*, *Neolamarckia cadamba*, *Oroxylum indicum* and *Toona ciliata* are generally not used as fodder by other communities in the region. Probably the easy availability of these plants tempted the *Mech* people to test these plants.

While grazing openly, these animals are probably browsing a much larger number plants. Specially, most of species of the grasses are liked by these animals. But, while a *Mech* is collecting fodders in the vegetation he/she look after only one point, i.e. they avoid those plants which may cause harm to the animals. Generally they do not grow any plant purposely for producing fodders but use many plants for this purpose those were originally planted for some other purpose. This include plants like *Melia azedarach*, *Moringa oleifera*, *Syzygium cumini*, *Toona ciliata*, *Aegle marmelos*, *Artocarpus heterophyllus*, *Bambusa nutans*, *Bambusa balcooa*, *Elaeocarpus floribundus*, *Gmelina arborea*, etc.

The animals they rear are found to remain quite healthy and that speaks for the successful selection of their fodder plants.

9.2.3. Plants for Domestic Uses: Apart from food many other materials are essential for survival. And, that may be long list. Provisions for accommodation, clothing, fibres, aromatic substances, dye, gums & resins, fishing & hunting equipments, musical equipments, etc are clubbed together here under this Domestic uses'. 39 species of angiospermic plants, covering 38 genera and 28 families have been recorded for this purpose. At least 22 areas have been recognized those are satisfied with these 39 species of plants. Fire-wood and materials for the construction of houses are the most important areas. It is a regular picture that the long-cues of fire-wood collectors are coming out of the forest in the afternoon. Under the present situation, may be, the entire collection is not for one's domestic use and, in such cases, they sale out the excess collection. For the construction of their houses, they prefer to collect the secondary or tertiary branches of *Shorea robusta*. Sometimes, the main trunk is also collected. The Table 7.2 has provided the numerical summary of the collected species for such uses. Different types of bamboos are available in these forests. All these bamboos are useful to the and mostly in multipurpose manner. House construction, fishing & hunting equipments, baskets, chicken & duck stores, water bottles, fencing, musical instruments, tools-handles, grain processing equipments, etc – in all cases bamboos are useful. For use as any kind of post or supporting structures bamboos find useful. Leaves, sheaths and semi-rotten bamboo stems are also use as fuel in village earthen stoves.

9.2.4. Medicinal Plants: Like people of any other community, *Meches* also suffer from numerous diseases. There are their own traditional healers mostly practicing herbal medicines, and *Mech* people even from developed villages prefer to be treated by them. These *Mech* healers are referred as *Ojas* in their society.

After analysis of all the documented *Mech*-medicine formulations, those are divided into two basic groups:

- (i) Medicines made of one species of plant, and

- (ii) Medicines prepared with definite formulations using more than one species of plants, rarely few non-plant materials are also used in such formulations.

A total of 130 species of medicinal plants has been recorded here to use by *Mech Ojas*. Out of these 74 species are used solitarily in some medicines. However, in numerous cases a species has been used in both the types of medicines. In most of the cases the formulations are completely fixed and with no replacements.

9.2.4.1. Comparison with Recognized Medicinal Plants: Recorded *Mech* medicinal plants were matched with one standard *Encyclopaedia of Indian Medicinal Plants* (Khare 2004) and the result has been presented in Table 9.4 below:

Table 9.4. Comparison of *Mech* Medicinal Plants with the plants recorded in an encyclopaedia (Khare 2004).

Plants	Recorded uses in <i>Encyclopaedia of Indian Medicinal Plants</i> (Khare 2004)
<i>Acampe papillosa</i>	Not recorded
<i>Acmella calva</i>	Not recorded
<i>Acorus calamus</i>	Purgative, appetizer, haemorrhage, fever, urinary, skin diseases, promoting intellect and longevity, epilepsy, insanity, asthma, consumption, menorrhagia, pastular eruptions, impotency and also a cardiac tonic, intestinal catarrh, indigestion, colic pain, dysentery; in vaginal discharges and other urinogenital diseases; also for purifying breast milk; cleansing and sterilizing wounds
<i>Aegle marmelos</i>	Diarrhoea, migraine, internal abscesses and for reducing obesity, appetizer, laxatives, checks vomiting, colitis, restorative tonic for women
<i>Ageratum conyzoides</i>	Not recorded
<i>Albizia procera</i>	Not recorded
<i>Alpinia nigra</i>	Not recorded
<i>Alstonia scholaris</i>	Skin diseases, oedema, urinary diseases, fever, malignant ulcers, leprosy and other virulent skin diseases, anal fistula, polyurea, chronic cough, purgative, infected wounds
<i>Amaranthus spinosus</i>	Used in toxic conditions, intoxication, internal haemorrhage, diuretic, laxative, antitoxic; in curing drowsiness due to poison, alcoholism or vitiated blood; checks bleeding.
<i>Ambroma augusta</i>	Dysmenorrhoea, emmenagogue, amenorrhoea
<i>Andrographis paniculata</i>	Used in sluggish liver; dyspepsia, griping, irregular bowels; loss of appetite, flatulence and diarrhea, especially of children; also in convalescence after fevers and general debility
<i>Argemone mexicana</i>	Externally used in skin and venereal diseases, purgative and cured intoxication, parasitic infection, itching, vitiated cough, constipation, poisoning and obstinate skin diseases, paralysis and abdominal swellings, ringworms
<i>Argyreia roxburghii</i>	Not recorded
<i>Artemisia indica</i>	Not recorded
<i>Azadirachta indica</i>	Internally used in virulent skin diseases, erysipelas, leprosy, urinary discharges, chronic fevers, poisoning, ascites, internal parasites, malignant ulcers, internal tumours, piles, oedema, jaundice; blood purifiers and antiperiodic; stomachic; purgative, emollient and anthelmintic, rheumatic swellings, hemiplegia, paralysis and other nervous disorders
<i>Bambusa balcooa</i>	Not recorded

<i>Bambusa nutans</i>	Not recorded
<i>Bischofia javanica</i>	Not recorded
<i>Butea monosperma</i>	In constipation, colic, dysuria, skin diseases, menstrual disorders, seminal weakness, obesity, piles, urinary calculi, urinary discharges, malfunctioning of the liver, dysentery, internal abscesses, abdominal glands, non-healing ulcers, leprosy, catarrh, cold and cough, sore throat, sexual debility; used as antitoxic, antiseptic, styptic, astringent, emmenagogue, diuretic, aphrodisiac; for treating laxicity of vagina, intestinal worms
<i>Boerhavia coccinea</i>	Oedema, haemorrhage, anaemia, biliousness, diseases of the nervous system, in heart diseases, piles, abscesses and rheumatic affections, enlargement of spleen, urinary diseases, skin diseases, respiratory diseases and fever, revitalizing and rejuvenating tonic, used in treatment of chronic alcoholism, dropsy, laxative, diuretic, stimulant to the urinogenital system, asthma, jaundice, ascites, urethritis
<i>Bombax ceiba</i>	Not recorded
<i>Breynia retusa</i>	Not recorded
<i>Calotropis gigantea</i>	Used for malignant skin diseases, piles, boils, ulcers, scabies, eczema, enlarged glands and leprosy, emesis and purgation, scrotal enlargement, elephantiasis, hydrocele, dysentery, cholera
<i>Careya arborea</i>	Not recorded
<i>Cassia alata</i>	Used in skin diseases like herpes, blotch, eczema, mycosis and for treating syphilis and gonorrhoea, leprosy; purgative, in stomatitis, bronchitis, asthma; internally used as an anthelmintic; ringworm
<i>Cassia tora</i>	Not recorded
<i>Centella asiatica</i>	It is age-sustainer and brain tonic; used for rejuvenation, pectoral lesions, ulcers and intestinal affections, vigour and longevity, chronic skin diseases, cough, fever, urinary disorders, anaemia, dermatosis, insanity, schizophrenia, epilepsy and convulsions, venereal diseases, eczema, psoriasis, festering sores; acts as astringent, nerve tonic; improving receptive and retentive capacity of mind
<i>Chromolaena odoratum</i>	Not recorded
<i>Cissus quadrangularis</i>	In cases of dislocation of joints and bone fractures; in leucorrhoea and metrorrhagia
<i>Citrus limon</i>	Carminative, digestive, antitoxic, cures parasitic infection, halitosis, cough, asthma, nausea, constipation, colic pain, hiccup; in gastritis; ringworm; in sluggish liver, dyspepsia
<i>Clerodendrum serratum</i>	Cough, fevers, hard cutaneous eruptions, catarrh, asthma, dyspepsia, colic pain, parasitic worms, piles, skin diseases, goiter, cervical adenitis, scrotal enlargement, inguinal hernia, dyspnoea; antitoxic, antiseptic, astringent, styptic
<i>Colocasia esculenta</i>	Not recorded
<i>Corchorus capsularis</i>	Not recorded
<i>Costus speciosus</i>	Not recorded
<i>Crassocephalum crepidioides</i>	Not recorded
<i>Crinum amoenum</i>	Not recorded
<i>Croton roxburghii</i>	Not recorded
<i>Curcuma aeruginosa</i>	Anaemia, oedema, parasitic infections, skin diseases including leprosy, ulcer, diseases of the eye, and cervical adenitis; used as carminative and galactagogue and for treating fevers; used as stimulant; on sprains and bruises; as cosmetic
<i>Curcuma aromatica</i>	In piles, inflammatory affections, vitiation of blood, cough, bronchitis, asthma, sprains, bruises; acts as internal antitoxic and antiseptic agent
<i>Curcuma longa</i>	In liver disorders, urinary affections, dermatosis, toxicosis, piles, bronchial asthma, senility, impaired vision; oedema, anaemia, skin diseases, leprosy, malignant ulcers, haemoptysis, seminal and urinary disorders, urethral and vaginal discharges; digestive and in chronic dysentery; purifier and promoter breast milk; ointment for ringworm; stomachic, tonic, blood-purifier, inflamed joints, common cold; used in bone fracture
<i>Cuscuta reflexa</i>	Used in liver problems and gallbladder; also as stomachic and anthelmintic; used for intestinal worms, in sluggish liver, jaundice, constipation, pain in uterus and bladder; blood purifier

<i>Cynodon dactylon</i>	Used for intrinsic haemorrhage, bleeding piles, wounds and for erysipelas and skin diseases like scabies, eczema, ringworm and urticaria; checks vomiting; for inducing menstruation; used as styptic; in ulcers
<i>Cyperus rotundus</i>	Diarrhoea, dysentery, ingestion; uterine and vaginal diseases; fever, hepatitis, flatulence of the stomach, palpitation and debility
<i>Datura metel</i>	Ointment for sinusitis; in insanity; eczema and ringworm, boils and eruptions; in chronic coryza; in hyperacidity, vomiting, burning sensation in the chest; in alopecia, falling hair and cutaneous affections of the scalp; used as hypnotic for averting premature ejaculation
<i>Derris polystachya</i>	Not recorded
<i>Desmodium triflorum</i>	Not recorded
<i>Dillenia pentagyna</i>	Not recorded
<i>Drymaria cordata</i>	Not recorded
<i>Eclipta prostrata</i>	Asthma, cough, bronchitis, rheumatism, senility; used as detoxifying, deobstruent and antiseptic, anaemia, splenic and liver enlargements, catarrhal jaundice, hyperacidity, gastritis, dysentery, skin affections; prescribed for anointing the head, for hair growth and for giving natural colour to grey hair
<i>Eleutherine bulbosa</i>	Not recorded
<i>Entada rheedii</i>	Not recorded
<i>Euphorbia hirta</i>	Not recorded
<i>Glycosmis pentaphylla</i>	Not recorded
<i>Gmelina arborea</i>	In stiffness of the back, facial paralysis; diarrhoea, bilious fever, haemoptysis, breathing trouble, asthma and for promoting adhesion of fractured bones; urticaria; applied on underdeveloped or sagging breasts; high fever, rheumatic affections, urinary tract infections, anuria, dysuria; on gout
<i>Helicteres isora</i>	It is antibilious, astringent, blood-purifier; used in diarrhea, dysentery, biliousness
<i>Hibiscus rosa-sinensis</i>	Contraceptive, leucorrhoea and other gynaecological disorders; amenorrhoea; for retarding premature greying of hair, controlling excessive uterine bleeding; used as refrigerant and vitaliser in palpitation, cough, fever, burning sensation in the body; venereal diseases
<i>Houttuynia cordata</i>	Not recorded
<i>Hydrocotyle sibthorpioides</i>	Not recorded
<i>Hypericum japonicum</i>	Not recorded
<i>Imperata cylindrica</i>	Galactagogue; used in retention of urine, dysuria, calculi, haemoptysis, diseases of reproductive system; for reducing obesity; acts as restorative, laxative
<i>Ipomoea aquatica</i>	Not recorded
<i>Jatropha curcas</i>	To stop bleeding or haemorrhage from wounds; also for treating scabies, eczema, ringworm; in rheumatism, piles, styptic, purgative
<i>Justicia adhatoda</i>	In pulmonary consumption, fever, malarial fever, cough, dyspepsia, anorexia, haemoptysis, oedema, anaemia, asthma, bronchitis
<i>Justicia gendarussa</i>	Not recorded
<i>Kaempferia rotunda</i>	Not recorded
<i>Kalanchoe pinata</i>	In ulcerative colitis, haemorrhagic dysentery, bleeding piles, metrorrhagia, styptic, small pox, cough and cold; used as astringent, antiseptic
<i>Lasia spinosa</i>	Not recorded
<i>Leucas indica</i>	Eye diseases, jaundice; used as blood purifier in psoriasis, scabies, chronic skin eruptions, malarial fever, rheumatism, antipyretic, in swellings, cough
<i>Lindernia anagallis</i>	Not recorded
<i>Lippia javanica</i>	Not recorded
<i>Mangifera indica</i>	Act as cardiac tonic, promotes complexion, semen, increases digestive power, cures urinary diseases and disorders caused by vitiated blood; cures vomiting and diarrhea, burning sensation in the chest due to acidity; in obesity, haemoptysis and vaginal discharges; in enlargement of spleen; in treatment of dandruff
<i>Macardonia procumbens</i>	Not recorded

<i>Melastoma malabathricum</i>	Not recorded
<i>Mentha spicata</i>	Used in flatulence, stomachache, dyspepsia, nausea, vomiting, cholera, diarrhea, cardalgia, catarrh, migraine, indigestion, chronic fevers
<i>Mimosa pudica</i>	In haemothermia, piles, diarrhea, persistent dysentery, diseases of female genital tract
<i>Momordica charantia</i>	Used in haemothermia, cough, fever, hiccup, urinary diseases, skin diseases, gout, measles, small pox, eruptions, diabetes, diseases of liver and spleen, rheumatism, jaundice, piles, leprosy; acts as emetic, purgative
<i>Momordica dioica</i>	Not recorded
<i>Morinda angustifolia</i>	Not recorded
<i>Moringa oleifera</i>	Oedema, anosmia, asthma, fainting, chronic skin eruptions, painful piles; in migraine, abdominal swelling, dropsy, for reducing obesity; boils, scrofula and leprotic wounds; abscesses; in gout, obesity, headache, eye diseases, and as a digestive stimulant; in catarrhal affections, cough, influenza, enlargement of spleen and liver, intestinal worms; articular pains, debility, neurological disorders and skin diseases, calculous affections, hiccup, rheumatism, gout, lumbago; used for reducing glandular swellings
<i>Morus australis</i>	Not recorded
<i>Murdannia nudiflora</i>	Not recorded
<i>Murraya koenigii</i>	Not recorded
<i>Musa balbisiana</i>	Not recorded
<i>Natsiatum herpeticum</i>	Not recorded
<i>Neanotis hirsuta</i>	Not recorded
<i>Neolamarchia cadamba</i>	It is adipogenous, retentive and inspissant to semen, aphrodisiac and cure affections of female genital tract, urinary disorders, anaemia and skin diseases; used as sedative, antitoxic, antiseptic, astringent, and in haemoptysis; in gastric irritability of children; galactagogue, blood purifier and as an expectorant; used for gargling in aphthous stomatitis due to their astringent properties; febrifuge and anti-diuretic; diarrhea, dysentery with bleeding, leucorrhoea, spermatorrhoea
<i>Nymphaea pubescens</i>	Not recorded
<i>Ocimum tenuiflorum</i>	Fever, splenic affections, toxicosis and skin eruptions; also for catarrh, cough, asthma and dyspepsia; for alleviating anorexia, parasitic infections, rhinitis, cough, cold, digestive, cures dysurea, vitiation of blood, urticaria, chronic skin diseases, piles, parasitic infections, vomiting, earache, conjunctivitis, post-parturition pain, chest diseases; pharynx, bronchial and lung infections; for expelling intestinal worms, cleansing wounds, conjunctivitis, malarial fever; in disorders of the genitourinary system; antipyretic, diaphoretic in fevers; in boils, mosquito bites, myiosis and ozoena
<i>Oroxylum indicum</i>	For dysentery, diarrhea, abdominal diseases, rheumatism, diseases of ear, nose and throat (ENT), high fever, partial paralysis, diabetes, dysuria, non-healing ulcers, gynaecological disorders, bone fracture, falling of hair and baldness, enlarged spleen, headache; acts as an antiseptic, antitoxic, astringent, styptic, stomachic, purgative
<i>Oxalis corniculata</i>	In piles, mesenteric disorders; for diarrhea, prolapsed of rectum, insanity, in dyspepsia and tympanitis, fevers with biliousness
<i>Paederia foetida</i>	In rheumatism, flatulence of abdomen, piles, inflammation of spleen, liver pain; applied to the abdomen in case of retention of urine
<i>Peperomia pellucida</i>	Not recorded
<i>Pericampylus glaucus</i>	Not recorded
<i>Phlogacanthus thyriformis</i>	Not recorded
<i>Piper attenuatum</i>	Not recorded
<i>Piper sylvaticum</i>	Not recorded
<i>Phrynium pubinerve</i>	Not recorded
<i>Phyllanthus amarus</i>	In jaundice, menometrorrhagia, haematuria, diarrhea, urinary disorders, chronic dysentery, ulcers, sores, swellings; used as deobstruent, diuretic, cooling and astringent
<i>Piper longum</i>	For cough, dyspnoea, diarrhea, diseases of mouth, malarial fever, arthritis, gout,

	asthma, chronic bronchitis, allergy, muscular atrophy, urinary disorders, anorexia, abdominal obstructions, tympanitis, contraception, intestinal disorders, enlarged liver and spleen, dyspepsia, stomachache, constipation, polyuria, dysuria, flatulence, throat infections
<i>Pogostemon amaranthoides</i>	Not recorded
<i>Polygonum plebeium</i>	Not recorded
<i>Plumbago zeylanica</i>	For intestinal catarrh, indigestion, colic, internal abscesses, jaundice, intestinal parasites, piles, urinary calculi, polyuria, spermaturia, vaginal discharges, deficient lactation, virulent skin diseases, poisoning; in diarrhea, dysentery, cough, throat related diseases, oedema, swellings of stomach and intestines; used for sprue, indigestion, colic and loss of appetite, acts as carminative and expectorant
<i>Psidium guajava</i>	Not recorded
<i>Pupalia lappacea</i>	Not recorded
<i>Ricinus communis</i>	Prescribed for misperistalsis, constipated bowels, diarrhea with blood and mucus; in rheumatism, inflammatory and irritable conditions of intestines, inflammatory diseases of rectum and urinogenital tract, lumbago, sciatica, plurodynia; for promoting conception, improving lactation, fevers, mental diseases; for hepatitis and splenitis
<i>Rotala rotundifolia</i>	Not recorded
<i>Scoparia dulcis</i>	Not recorded
<i>Sida acuta</i>	Not recorded
<i>Sida cordifolia</i>	In urinary diseases, splenic disorders, for rejuvenation and promoting fertility; rheumatism, gout, hemiplegia, neurological affections, muscular atrophy, torticollis, goiter, intrinsic haemorrhage, meno-metrorrhagia; prescribed as rejuvenating and nervine tonic; for loss of vitality; for facial paralysis and sciatica, alleviating erysipelas, diarrhoea
<i>Smilax ovalifolia</i>	Not recorded
<i>Solanum anguivi</i>	For toxicosis, pain, oedema of vagina, diarrhea, cough, piles, promoting conception, alopecia, haemothermia, bronchitis, chronic febrile conditions, headache, fever, anorexia, tympanitis, convulsions
<i>Solanum torvum</i>	Not recorded
<i>Solanum tuberosum</i>	Not recorded
<i>Solanum viarum</i>	Bronchial asthma, tympanitis, misperistalsis, piles, dysuria, and for rejuvenation, cough, hoarseness of voice, indigestion, anorexia, abdominal pain, fever; for suppression and retention of urine, promoting fertility and impregnation; acts as blood-purifier, antiseptic, antiperiodic, anti-inflammatory, cardiac tonic, restorative
<i>Spondias pinnata</i>	Not recorded
<i>Stephania glabra</i>	Not recorded
<i>Stephania japonica</i>	Not recorded
<i>Streblus asper</i>	Not recorded
<i>Terminalia arjuna</i>	For cardiac disorders, diarrhea, intrinsic haemorrhage, piles, ulcers; in freckles, vaginal discharges, migraine, internal abscesses, obesity, haemoptysis, jaundice, urinary calculi, chronic skin diseases; hair dye
<i>Terminalia bellirica</i>	Cough, irregular fever, cardiac affections, gradual loss of vision, deficient lactation, urinary diseases, chronic skin diseases; used as purgative; for preventing premature balding and dyeing hair; dyspnoea and asthma; in rheumatism, oedema, piles, sore throat, bronchitis
<i>Terminalia chebula</i>	Used for indigestion, oedema, dermatosis, urinary diseases, uterine and vaginal disorders, irregular fevers, hysteric convulsions, epileptic fits, tympanitis, vomiting, colic, sprue syndrome, jaundice, splenic disorders; acts as over-all tonic, blood-purifier, galactagogue, purgative, constipative, promoter of eyesight, dentifrice for bleeding gums; for treating cough, asthma, hiccup, throat affections, impaired voice, conjunctivitis
<i>Tinospora cordifolia</i>	Used for jaundice, splenomegaly, irregular fever, polyuria, diabetes, acid gastritis, gout, rhumatic affections, skin diseases, cough; acts as rejuvenating tonic,

	antiperiodic, antipyretic, anti-inflammatory agent
<i>Typhonium trilobatum</i>	Not recorded
<i>Vitex negundo</i>	Used for neuralgic pain of supraclavical region, sinus, fistula, scabies, catarrh, cough, asthma, rhinitis, cervical adenitis, splenic enlargement, cleansing of ulcers, venereal sores, spermatorrhoea, chronic ulcers and skin diseases; in rheumatism, gonorrhoeal epididymitis and orchitis, headache, dysentery, liver complaints; for removing foetid discharge from wounds and ulcers, promoting virility; used as febrifugal, expectorant and diuretic, dyspepsia
<i>Xanthium indicum</i>	Not recorded
<i>Zanthoxylum rhetsa</i>	Not recorded
<i>Zea mays</i>	Used for anuria, cystitis, metrorrhagia, bleeding piles, cough
<i>Zingiber cassumunar</i>	Not recorded
<i>Zingiber officinale</i>	It is used for oedema, piles, abdominal diseases, coryza, bronchial asthma, jaundice, influenza, fever, internal obstructions and congestions, polyuria, cough, dropsy, chronic heart diseases, stimulating appetite, congestion of nasal passage and sinus, rheumatism, sciatica, lumbago, nausea, vomiting, retching, dyspepsia; in liver and spleen diseases; acts as antinarcotic, snuff for headache, cardiac tonic, nervine tonic
<i>Zizyphus mauritiana</i>	For loss of voice, giddiness, piles, bilious and rheumatic affections, anuria; as purgative, warm enema, diuretic, stomachic and laxative; in haemoptysis, menstrual and other vaginal disorders, obesity, gluttonous appetite, leucorrhoea, vomiting, diarrhoea, dysentery, gingivitis

As per the present comparison it is now noted that out of the 130 species of plants used by *Mech Ojas* in their medicines 72 are not recorded in the *Encyclopedia of Indian Medicinal Plants* (Kirtikar & Basu 1933). However, when compared with some other books on medicinal plants covering this part of the country including Das & Mandal (2003), Das *et al* (2006, 2008), Gurung (2002), Sharma & Sharma (2010) and Jha *et al* (2008) it can be realized that some of these 72 species are also with important medicinal importance. Even after that 24 species recorded during the present survey appears to be new use record as traditional Medicinal Plants. These plants are: *Acampe papillosa*, *Albizia procera*, *Bambusa balcooa*, *Bambusa nutans*, *Bischofia javanica*, *Bombax ceiba*, *Breynia retusa*, *Derris polystachya*, *Hydrocotyle sibthorpioides*, *Lindernia anagallis*, *Lippia javanica*, *Macardonia procumbens*, *Murdannia nudiflora*, *Nymphaea pubescens*, *Peperomia pellucida*, *Piper attenuatum*, *Piper sylvaticum*, *Phrynium pubinerve*, *Pogostemon amaranthoides*, *Polygonum plebeium*, *Pupalia lappacea*, *Rotala rotundifolia*, *Spondias pinnata* and *Zingiber cassumunar*.

9.2.5. Plants for Veterinary Medicines: *Mech* people keeps so many types of types of domesticated animals like cows, buffalos, goats, sheep, fowls, ducks, pigs, dogs and cats. Like their masters, these animals too suffer from different types of diseases. And, the *Mech Ojas* have definite prescriptions for curing their ailments. The present survey has recorded the uses of 29 species of plants covering 28 genera from 21 families to tackle different veterinary problems. These include the problems they face regularly like helminth infestation, improper lactation, exoparasites, dysentery, flatulence, pneumonia, etc. As much as 23 types of diseases they treat and the formulations are quite simple. Most of the plants used for the treatment of their animals are also used for the treatment of man, i.e. these are mostly known medicinal

plants. These include important medicinal plants like *Alstonia scholaris*, *Azadirachta indica*, *Justicia adhatoda*, *Nyctanthes arbor-tristis*, *Cannabis sativa*, *Centella asiatica*, *Curcuma longa*, *Cynodon dactylon*, *Euphorbia hirta*, *Zingiber officinale*, *Paederia foetida* etc. For the preparation of medicines they use different plant parts like leaf, stem, rhizome, root, bark, fruit, flower, etc in the form of extracts, pastes, etc for treatment. Very rarely they use jaggery or black salt or table salt to prepare or to effective administration of medicines. The main success of any type of treatment depends on the rate of success in curing diseases with least or no side effects. The animals they maintain appear quite healthy and that reflects the success of their veterinary formulations.

9.2.6. Poisonous Plants: A plant becomes poisonous when it produce and store some chemicals those can create adverse effect on the body of one or more other organisms. Sometimes we need to use poisonous plants. Some cases like killing stupefying of fishes, poisoning arrows, repelling snakes and insects, creating madness or even killing people! Thirteen species (covering 11 families) have been recognised under this section and they use majority of the poisonous plants for stupefying fishes as they need to catch good amount of fishes from the local streams, rivers and other type of wetlands not only for their personal consumption but also for marketing. Interestingly, plants recorded under this section are all recognized medicinal plants.

9.2.7. Preparation of Jou: *Jou*, the traditional Rice Beer produced by *Meches* is a part and parcel of their life style. Most of the traditional societies produce such type of drink. It is not a mere alcoholic drink but they use it as 'food'. Just with *Jou* they can spend whole day or even days together. The comparison of the method of Rice Beer preparation by some other tribal communities shows that there are many differences in the herbal ingredients of starter mixture. Otherwise, the methods of preparation of starter mixture and the method of fermenting of boiled rice are almost similar. If the *Jou/ Haria/ Jhara* preparation can be standarise and the level of their food-values can be maintained properly, rice beer also can be marketed as a health drink with no side effect as similar drink *Fenny* is marketed in Goa.

9.2.8. Plants used in Decoration, Religious acts and in Festivals: Mostly beautiful plants are used for decoration during different occasions including foliage and flowering plants. Decoration is the basic need for festivals and for divine worships. In traditional societies most of the festivals are in connection with some religious acts and that is true for the *Meches* too! They organize these events round the year. And, in remote villages food is the most important limiting factor. They can harvest good crop only when the cultivation was proper. So, it is natural that worships and festivals will remain associated with the beginning of the cultivation and harvesting of crops. It is natural that *Laakhee Phunai* will be the most

important worship cum festival for them as through this they seek and get (as traditionally they believe) the permission to harvest the crop they produced in their croplands.

Basically they follow their own *Bathou* Religion. *Bathou* or the Lord Shiva is the creator but they also offer divine worship to many other Gods and Goddesses. And, for all these they use a good number of plants in different stages of worship and/or festival. A scrutiny of the plants used shows that some plants like *Euphorbia royleana*, *Ocimum tenuiflorum*, *Cynodon dactylon*, *Justicia gendarussa*, *Areca catechu*, *Piper betle*, *Musa balbisiana* and *Oryza sativa* are the most important religious and festival oriented plants in *Mech* society. *Euphorbia royleana* is the representative of *Bathou* and is planted on a platform like elevated place and is worshiped regularly. They do not worship any artificial structure like a doll or stone, instead the worship plants. Probably that brings them nearer to nature and induces love for nature in their mind. The prayer they perform before the God is very simple requesting Him for helping them to get enough food and to keep them healthy. If the people of a society remain healthy and get enough food from surrounding vegetation and/or from their cropland then they can maintain an independent life style. They consume good amount of *Jou* during all these festivals.

Birth, marriage and death are three very important stages of our life. Birth and marriage are welcome occasions and death is a loss. However, in all these three stages they use a number of plants in different manner. During pregnancy an aseptic condition need to be maintained and the same is also important at the time of giving birth and the first few days of child's life in open environment. Use of plants like *Ocimum tenuiflorum* and *Cynodon dactylon* etc are the indications that they feel to keep things clean and free from infections. Marriage is one joyful occasion but it formally initiates the reproductive phase of one boy and a girl. So, this is treated as a ceremony and in its ceremonial part some religious plants are in use. After the death of a person in a family, the bereaved living members do not feel comfortable and become susceptible. Under such condition, they need to take care of their own health as well as the health of the departed soul. *Mech* people believe in the existence of the soul and a soul never dies but change the body. For some time, before entering into the next new body, the soul remains free. So, after the death of a person they need to think for a number of persons. The dead, his family members and his departed soul. However, during all these life-stage related social programs they use quite a few plants like *Cynodon dactylon*, *Ocimum tenuiflorum*, *Euphorbia royleana*, *Musa balbisiana*, *Bambusa tulda*, *Bambusa nutans*, *Bombax ceiba*, *Oryza sativa*, *Areca catechu* and *Piper betleoides* for birth; *Areca catechu*, *Bambusa nutans*, *Bambusa tulda*, *Cynodon dactylon*, *Euphorbia royleana*, *Musa balbisiana*, *Oryza sativa* and *Piper betle* for marriages and during death *Bambusa tulda*, *Corchorus capsularis*, *Cynodon dactylon*, *Imperata cylindrica*, *Justicia gendarussa*, *Ocimum tenuiflorum*, *Oryza sativa* and *Shorea robusta*.

May be the total number of plants are not so high but a total of 14 species [*Areca catechu*, *Bambusa nutans*, *Bambusa tulda*, *Bombax ceiba*, *Corchorus capsularis*, *Cynodon dactylon*, *Euphorbia*

royleana, *Imperata cylindrica*, *Justicia gendarussa*, *Musa balbisiana*, *Ocimum tenuiflorum*, *Oryza sativa*, *Piper betle* and *Shorea robusta*] of plants they use. All these plants are either religious or are economically important.

9.2.9. Plants in Folklores: Folklores speak a lot about a community. In one hand it bears information regarding the origin and migration and on the other hand the great events, likings, dislikings and culture of the community. The collected folklore, mainly poems and puzzles were analyzed for information in regard to uses of plants from different angles. A total of seven poems and 14 puzzles were analysed.

The selected seven poems mostly showed their relationship with the habitat, which is generally forested and full of useful materials to use as food, fodder, house building materials, medicines, making instruments for hunting and recreational activities. These have reflected their lifestyle which is too much dependent on their surrounding vegetation, their cultivation, enemies and the habitat structure or, in other words, the environment in total.

Six out of 14 puzzles presented here are involving their food-plants [*Litchi chinensis*, *Citrus maxima*, *Ananas comosus*, *Zea mays*, *Cucurbita maxima* and *Zizyphus mauritiana*] and for one puzzle the answer is *Jou* – the elixir of their life. Another puzzle indicates the ‘bow & arrow’. *Mech* people live in forest villages where they need survive from the attack of numerous species of wild animals. Many such animals like leopard, bison, elephant, different types of snake, wildcats etc regularly visit their villages. So, for their safety and also for hunting the edible animals bow & arrow are the most important equipments. Similarly, other puzzles also indicating important objects like heap of straw, umbrella made of *Phrynium pubinerve* leaves, pillow stuffed with *Bombax ceiba* floss collected from local vegetation, the rootless mosses and the stinging plant *Dendrocnide sinuata*. They have realised that the mosses are rootless and that has expressed their power of observation.

9.3. New and Additional Records of Ethnic uses of Plants

During the present survey the ethnic uses of 271 species of plants has been recorded. A comparison with the *Dictionary of Indian Folk Medicine and Ethnobotany* (Jain 1991) and *Dictionary of Ethnoveterinary Plants of India* (Jain 1999) shows the new use records for the following plants:

Acampe papillosa, *Alangium chinense*, *Alternanthera paronichioides*, *Argyreia roxburghii*, *Artemisia indica*, *Axonopus compressus*, *Derris polystachya*, *Digitaria ciliaris*, *Eleutherine bulbosa*, *Eragrostis unioloides*, *Gliricidia sepium*, *Grewia serrulata*, *Kyllinga nemoralis*, *Lagerstroemia hirsuta*, *Macaranga denticulate*, *Malvaviscus arboreus*, *Mecardonia procumbens*, *Oplismenus burmannii*, *Oplismenus compositus*, *Persicaria chinensis*, *Pogostemon amaranthoides*, *Premna bengalensis*, *Pupalia*

lappacea, *Sansevieria trifasciata*, *Setaria palmifolia*, *Spermacoce latifolia*, *Stellaria wallichiana*, *Tetrastigma bracteolatum*, *Xanthosoma brasiliense*, *Zehneria japonica* and *Zingiber cassumunar*.

In addition to these, there are some other plants those are recorded earlier for some ethnobotanical uses but during the present survey newer type of their uses have been recorded. Following plants are coming under this category (new type of uses are given within parenthesis):

Acmella calva (edible, fodder); *Aegle marmelos* (fodder); *Alocasia macrorrhizos* (fodder); *Alpinia nigra* (medicinal), *Alstonia scholaris* (fodder, musical instruments, wooden sandal, fish poison), *Alternanthera sessilis* (fodder), *Amaranthus lividus* (fodder), *Amaranthus spinosus* (veterinary, fodder), *Amaranthus viridis* (fodder), *Amorphophallus bulbifer* (veterinary, fodder), *Annona reticulata* (veterinary, fodder), *Areca catechu* (fencing), *Artocarpus heterophylla* (fodder), *Artocarpus lacucha* (fodder), *Baccaurea ramiflora* (fodder), *Bambusa nutans* (medicinal, veterinary, edible, fodder, religious ceremony, fencing), *Boerhavia coccinea* (fodder), *Calamus erectus* (religious ceremony), *Cannabis sativa* (veterinary), *Centella asiatica* (veterinary), *Chenopodium album* (fodder), *Clerodendrum viscosum* (ingredient in rice beer), *Colocasia esculenta* (fodder, veterinary), *Commelina benghalensis* (fodder), *Corchorus capsularis* (veterinary, thatch, religious ceremony), *Costus speciosus* (ornamental, fish poison), *Crinum amoenum* (veterinary, gardening), *Curcuma longa* (veterinary), *Cynodon dactylon* (veterinary, fodder), *Cyperus rotundus* (fodder), *Datura metel* (poisonous for human health), *Dillenia indica* (fodder), *Dillenia pentagyna* (fodder), *Diospyros malabarica* (fodder, tanning fishing nets, trapping birds), *Drymaria cordata* (edible, fodder), *Elaeocarpus floribundus* (fodder), *Enydra fluctuans* (fodder), *Euphorbia hirta* (fodder), *Ficus hispida* (fodder), *Gmelina arborea* (fodder, religious ceremony), *Hibiscus sabdariffa* (veterinary), *Imperata cylindrica* (fodder, religious), *Ipomoea aquatica* (fodder), *Jatropha curcas* (veterinary, fencing), *Justicia adhatoda* (veterinary), *Justicia gendarussa*, (religious), *Kalanchoe pinnata* (decoration), *Lippia javanica* (edible), *Luffa aegyptica* (bath sponge), *Mangifera indica* (fodder), *Melastoma malabathricum* (hair dye), *Mirabilis jalapa* (divine offering), *Murraya koenigii* (snake repellent), *Musa balbisiana* (edible, medicinal, veterinary, fodder, offering, ceremonial decoration), *Neolamarchia cadamba* (fodder), *Nymphaea pubescens* (medicinal), *Oroxylum indicum* (fodder), *Oryza sativa* (veterinary), *Paederia foetida* (veterinary), *Pericampylus glaucas* (medicinal, veterinary), *Persicaria hydropiper* (veterinary), *Phrynium pubinerve* (medicinal), *Piper betle* (veterinary), *Plumbago zeylanica* (poisonous for human health), *Psilanthus bengalensis* (divine offering), *Rotala rotundifolia* (medicinal), *Saccharum spontaneum* (fodder, religious ceremony), *Tephrosia candida* (manure, fuel), *Thevetia peruviana* (divine offering, poisonous), *Typhonium trilobatum* (medicinal, fodder), *Vetiveria zizanioides* (broom), *Vigna mungo* (religious ceremony), *Vitex negundo* (edible), *Zingiber officinale* (edible, veterinary), *Achyranthes bidentata* (fodder), *Ambroma augusta* (medicinal), *Bambusa tulda* (religious), *Barringtonia acutangula* (fruits used for playing), *Bidens pilosa* (fodder), *Bischofia javanica*

(medicinal), *Callicarpa arborea* (furniture, Poison arrow head), *Catharanthus roseus* (religious purpose, gardening), *Casearia graveolens* (fruits used for playing), *Cassia fistula* (burnt fruit ash used for washing utensils), *Cicer arietinum* (religious ceremony), *Deeringia amaranthoides* (edible, deep violet dye), *Diplocyclos palmatus* (edible), *Eichhornia crassipes* (edible, fodder), *Euphorbia royleana* (veterinary, sacred), *Ficus benghalensis* (fodder), *Ficus religiosa* (fodder), *Gossypium arboreum* (cotton used for making mattress and traditional dress), *Hydrocotyle sibthorpioides* (medicinal, veterinary), *Litsea monopetala* (fuel wood), *Mentha spicata* (medicinal), *Michelia champaca* (timber, fire wood), *Mikania micrantha* (fodder, cordage), *Monochoria vaginalis* (edible), *Nyctanthes arbor-tristis* (veterinary), *Oldenlandia corymbosa* (edible), *Piper nigrum* (edible), *Pogostemon amaranthoides* (medicinal), *Toona ciliata* (fodder, furniture), *Trema orientalis* (fuel) and *Trewia nudiflora* (fuel).

So, the present survey has recorded new 31 ethnobotanical plants, i.e. the ethnic uses of those plants were earlier unknown to the scientists. In addition, another set of 104 species of plants were also recorded with their newer ethnic uses.

9.4. Future of *Mech* Traditional Knowledge

Through in the present discussion attempts have been made to establish the originality and the importance of *Mech* Traditional Knowledge on the uses of their local plants. But the structures of human settlements are changing very rapidly. Forest cover is decreasing at an alarming rate, present set of country's forest related rules are prohibiting tribal people to collect many of their forest-based daily requirements. Extension of road net-works, easily approachable markets of processed goods, Government Hospitals with modern treatment facilities, television programs, cinemas, establishment of schools almost in all villages etc are changing their life style very fast.

Yes, *Mech* people too should enjoy all these facilities of modern society and need to be strong in their economy. Government's initiatives or programs to uplift the quality of life style of most of the traditional societies, including *Meches*, are appreciable. Now, numerous *Mech* boys and girls are coming out to participate in University oriented education systems. They are now opting for numerous good professions and becoming Physicians, Advocates, Teachers, Administrators etc. And, the coming generations in *Mech* societies will, no doubt, move equally with the people of any developed community in their area. Quite a few *Mech* students are now pursuing their post-graduate studies in the University of North Bengal itself. But, all these changes are endangering their Traditional Knowledge which they have developed during their existence with the natural environment for thousands of years.

Unless conserved properly, the planet's human society will lose some important knowledge generated by *Meches* living in Duars of West Bengal and Assam.

9.5. Conservation of *Mech* Traditional Knowledge

It is not possible to ask the *Mech* people to continue their survival completely in their traditional manner. The elderly people and the people in remote villages like to practice ethnobotanical means even today. But, in developed areas and especially the present generation of enthusiastic young boys and girls like to see the world and to enjoy all facilities of modern civilization. They will hardly follow any traditional methodology.

Keeping this important point in mind, the immediate first and the basic requirement for the conservation of *Mech* Traditional Knowledge (TK) is the detailed survey in all their settlements mainly in Duars and Assam. It is true that now they are distributed outside this area but that migration is linked with their working or earning facilities and is living in comparatively developed locations. So, the steps for the conservation of TK are:

- i. Survey & Documentation (written and photographic)
- ii. Careful selection of TK for potential future uses
- iii. Assessment in modern laboratory conditions
- iv. Processed into agreeable structure for distribution in modern societies.

The traditional people do not like to share their knowledge with the outsiders. Initiative need to be taken for their realization and proper recognition and financial assistance need to be extended for them as they are the owner of such TKs. The TBGRI or Pushpangadan Model (Pushpangadan 2003) can help in such negotiations.

9.6. Some Important Areas in *Mech* Traditional Knowledge

Traditional Knowledge potential for exploitation can be found in different types of uses. Edible and medicinal properties are more important. Some such areas may be:

- i. *Jow/ Haria/ Jhara* preparation may be standardised, produced in bulk and can be marketed
- ii. Some potential non-conventional edible plants may be selected for basic improvement, including the estimation of food values, and can be introduced into the cultivation leading to their marketing. Some such selected plants may be *Alternanthera philoxeroides*, *Alternanthera sessilis*, *Amaranthus viridis*, *Baccaurea ramiflora*, *Costus speciosus*, *Dillenia pentagyna*, *Diplazium esculentum*, *Enydra fluctuans*, *Flacourtia jangomas*, *Glinus oppositifolius*, *Helminthostachys zeylanica*, *Houttuynia cordata*, *Hygrophila auriculata*, *Marsilea minuta*, *Mussaenda roxburghii*, *Oroxylum indicum*, *Phlogacanthus thyriformis*, *Piper sylvaticum*, *Polygonum plebeium*, *Solanum anguivi*, *Solanum torvum*, *Stellaria wallichiana*, *Typhonium trilobatum*, etc. Again, some of these plants already brought to the

urban or even metropolitan (e.g. Kolkata) markets in low quantity. But, there are good demands which can not be satisfied from the collection in natural vegetation only. Plants like *Typhonium trilobatum*, *Polygonum plebeium*, *Marsilea minuta*, *Hygrophila auriculata*, *Glinus oppositifolius*, *Enydra fluctuans*, *Diplazium esculentum* and *Alternanthera philoxeroides* are sold in different Kolkata markets.

- iii. Some of the *Mech* cuisines may be tested and some improvement may be made in the recipe and can be popularized. *Ondla* may be first *Mech* FAST FOOD that can be tested for this purpose.
- iv. Most of the formulated *Mech* medicines work quite effectively. Scientific evaluation of many such formulations may lead to the discovery of some quite effective drugs to replace some synthetic ones.