

#### CENTRE FOR ECOLOGICAL SCIENCES

#### INDIAN INSTITUTE OF SCIENCE FIELD STATION, VIVEKNAGAR, KUMTA 581 343, INDIA

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CES/TVR/CCP/8504/2011

#### "MY VILLAGE BIODIVERSITY DOCUMENTATION"

#### **Instruction to Participants**

- 1. The students are advised to take guidance from teachers.
- 2. The student and teachers may contact our office for clearing doubts.
- 3. Only one student or two should work on the selected village.
- 4. An institution may select as many villages which their students can handle.
- 5. The students are advised to use their vacation and holidays for the study.
- 6. **Submission of the entry form** with the letter indicating name of the students and villages chosen 4 July 2011
- 7. Study reports should be sent to our office by end of 31 August-2011.
- 8. All students who submit good reports will be invited for taluk level presentation of reports in September 2011.
- 9. Students selected in the taluk level can rework and improve their reports and submit final reports before October 2011.
- 10. Final presentations will be held during October 2011 and classwise **Young Ecologists Award** will be given at the conference (**Conference on Uttara Kannada's Biodiversity** at Sirsi, Uttara Kannada district)
- 11. All reports should be sent to **Kumta address:**

Completed study reports to be sent to:

Dr. M.D. Subash Chandran Antino Market CES, Field Station (Indian Institute of Science) Vivek Nagar, Kumta-581 343

For more information contact:

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#### Organised by

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#### MY VILLAGE BIODIVERSITY DOCUMENTATION FORMAT

(Village means revenue village)

Village name :	Student's names	Class
Panchayat name:	1.	
Taluk :	2.	
Name of school Address of school with phone no. & email:	Name of guide teacher	
	Phone no :	

#### 1) FOREST TYPES OF VILLAGE

	Forest types	Yes	No
a)	Evergreen forest		
b)	Semievergreen forest		
c)	Deciduous forest		
d)	Scrub		
<b>e</b> )	Mangrove vegetation (only for coastal taluks)		
f)	Savanna (grassland with trees)		

#### 2) LANDSCAPE ELEMENTS OF THE VILLAGE

	Landscape eleme	ents	Yes	No
a)	Bena (grassland) :	least		
b)	Rocky places (Name & localities)	Rock types (write	local names)	
i				
ii	CTA	VIENNIAL		
iii				
iv				
c)	No. of stone quarries :			
	Type of stone in the quarry :			_
d)	No. of soil quarries:			
	Types of soil :			
e)	V 2		here	
	Sand extraction from sea shore if any		sea shore?	
f)	Mining details (record if any metal or	re is removed from the villag	(e):	

<sup>\*</sup> Use extra sheets for writing if necessary

<sup>\*</sup> **Note:** 1. Only one or two students to study one village

<sup>2.</sup> Use extra sheets for writing if necessary

#### 3) WATERSCAPE ELEMENTS OF THE VILLAGE

	Waterscape elements Water availability ( )										
a)	Name of the river, if any:  J F M A M J J A S A N D										
b)	Stream names:										
	Name of perennial streams if any:										
	i)ii)iii )										
c)	Name of perennial springs if any:										
d)	Waterfalls: Name(Height): i) ii)										
<b>e</b> )	Name of any dam in the village:										
f)	Names or numbers of check dams:										
g)	Backwater areas:										
h)	Swampy places if any with local name:										
i)	Ponds and Lakes										
	Amain										

Name	Area in acres			No	o. of	moi	nths	wit	h wa	ater	()		
		J	F	M	Α	M	J	J	A	S	A	N	D
		J	F	M	Α	M	J	J	Α	S	Α	N	D
	loh5	J	F	M	Α	M	J	J	Α	S	Α	N	D
		J	F	M	Á	M	J	J	Α	s	Α	N	D
		J	F	M	Α	M	J	J	Α	S	Α	N	D
	380 Page	J	F	M	A	M	J	J	Α	S	Α	N	D
	1 Sa 1 Sa	J	F	M	A	M	J	J	Α	S	Α	N	D

<sup>\*</sup>Use extra sheets for writing if necessary

#### 4) PLANT DIVERSITY OF THE VILLAGE

### A) Medicinal plants

#### i) Medicinal plants of the village and utilisation of plants by village people

Dl4		Availabi	ility	Parts used for	Uses		
Plant name	High	Tigh Med Less		medicine	Uses		

<sup>\*</sup>Use extra sheets for writing if necessary

#### ii) Medicinal plants collection and trade List medicinal plants that are grown by villagers in their own gardens/farms for sale

NI CC	Medicinal plants	Agency/name of	Demand				
Name of farmer	grown for sale	purchasers	good	moderate	poor		

<sup>\*</sup>Use extra sheets for writing if necessary

#### iii) List of medicinal plants collected from the village/forest for sale

	Madicinal plants	A conculname of	Demand				
Name of collector	Medicinal plants collected for sale	Agency/name of purchasers	good	moderat e	poor		
	( alak	Sorting	9				
	Cuu	and and ad					

<sup>\*</sup>Use extra sheets for writing if necessary

#### B) Uses of non-cultivated plants for food

Dlant manns	Av	ailabili	ty	Part used for	Tiese
Plant name	High	Med	Less	food	Uses
			Cu		
		CF	NTEN	MINE	

<sup>\*</sup>Use extra sheets for writing if necessary

#### C) Non-cultivated plants that are used for other purposes than food

Plant name	Av	/ailabil	ity	Part used	Uses
Fiant name	High Med Lo		Less	ran useu	Uses

<sup>\*</sup>Use extra sheets for writing if necessary

D)	R	<b>lare</b>	types	of	forest	trees	present	in	the	village
----	---	-------------	-------	----	--------	-------	---------	----	-----	---------

Forest tree local name	Location name					

<sup>\*</sup>Use extra sheets for writing if necessary

#### E) Road side trees

List planted roadsid trees by surveying one km of village main road

Trees Species	Nos
( alaban	Linn
Claudi	11100
Section 1	10/2

<sup>\*</sup>Use extra sheets for writing if necessary

#### F) Forest products

#### i) Collection of forest produce

(Interview persons who collect forest produce; list the products that are regularly collected from the forests)

Names of forest produce collectors	List of products collected	Uses of products for own use/sale

<sup>\*</sup>Use extra sheets for writing if necessary

#### ii) Do contractors collect forest produce (name products collected)

#### iii) Do local societies collect forest produce

(name society, products collected etc. - Attach details from Societies' annual report)

<sup>\*</sup>Use extra sheets for writing if necessary

Name of society	Products collected	Annual Income

<sup>\*</sup>Use extra sheets for writing if necessary

#### G) Agriculture

#### i) Names of crop plants and their varieties

(Note: Please note down varieties of rice, sugarcane, ragi, jowar, other millets, black gram (uddu), pacha hesaru (green gram), cow pea (alsandi); ground nut (senga), etc.)

Name of crop	Names of varieties	Farmer's name & address	Area (Acres-Gunta)
		3500	
		3/3/1/3	
		200	
	7		
		Mens	
	0		

<sup>\*</sup>Use extra sheets for writing if necessary

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#### ii) Special characters of crop varieties (please give importance to traditional varieties)

Note: Special characters: Please note down special characters as explained by the farmer. For eg: Crop name: Rice; Variety name: Bantwala: Special characters: 3.5 months duration, tall (5 ft); red rice, yield approx. 8quintals/acre; tasty; soft straw liked by cattle – Please ask farmer to describe the varieties.

Стор пате	Variety	Farmer interviewed	Special characters

lse extra sheets for w	iting if nacessar	

iii) Traditional storage methods of agricultural products
(Explain what are the important methods of storage of foodgrains and pulses etc. without damage or insect attack.)

Agricultural product	Traditional storage/preservation methods
	Class 1
	MEULL
	CENTENNIA

<sup>\*</sup>Use extra sheets for writing if necessary

iv) Model agriculturists in the village

Names	Why he/she is considered model?

<sup>\*</sup>Use extra sheets for writing if necessary

#### v) Seed treatment

Name of farmer	Name of crops	Seed storage method	Seed treatment before planting	Name of substances/chemicals used for seed storage/treatment

<sup>\*</sup>Use extra sheets for writing if necessary

#### H) Horticulture

#### i) Horticultural crop and their varieties

(Note: Please note down varieties of coconut, arecanut, pepper, betel leaf, mango, jack fruit, banana, citrus, vegetables, leafy vegetables, chillies, local flowers, kokam, onions, tubers, ginger, cardamom)

Name of crop	Names of varieties	Farmer's name & address	Area (Acres-Gunta)
		8 12	
		20	
		108	
		Means	
	C		

<sup>\*</sup> Please use extra sheets

#### ii) Special characters of horticultural crop varieties

**Note:** Please note down special characters as explained by the farmer

Crop name	Variety	Farmer interviewed	Special characters

I				
I×∎	Ico ovtro choote f	or writing if neces	NOODET .	

<sup>\*</sup>Use extra sheets for writing if necessary

#### iii) Traditional methods of processing and storage of horticultural products

(Explain what are the important methods of processing and storage of horticultural products without damage or insect attack.).

Horticultural products	Traditional storage/preservation methods
	100
	Mears

<sup>\*</sup>Use extra sheets for writing if necessary

#### iv) Information about home gardens for growing vegetables

(collect information form a cluster of ten families – poor and rich and representing different communities)

Person interviewed	Home garden Present/absent	Vegetables grown	Write reasons why home garden is not there for the family

v) M	odel horticulturists in the v	illage
	Names	Why he/she is considered model?

Names	why ne/she is considered model?

<sup>\*</sup>Use extra sheets for writing if necessary

vi) Fruit trees grown in the school campus

Name	No.
	100
( elehan)	1/11/

<sup>\*</sup>Use extra sheets for writing if necessary

vii) Methods for ripening of fruits

Name of farmers	Crops	Fruit ripening methods you apply
		March 1

<sup>\*</sup>Use extra sheets for writing if necessary CENTENNIN

viii) Fruits storage/preservation/ processing methods (making pickles, jams, drying, salting etc)

Name of farmers/other persons	Crops	Fruits storage/preservation/processing methods	Purpose (for own use/sale)

<sup>\*</sup>Use extra sheets for writing if necessary

#### I) Model Farms

i. Write names of the farmers who have model farms. Model farms combine many of the following features described under a/b/c/d etc. (whatever is applicable).

Names of the farmers		Features														
	а	b	c	d	e	f	g	h	i	j	K	1	m	n	0	p

- a. Water conservation methods adopted
- b. Soil conservation methods adopted
- c. Animal husbandry is part of the system
- d. Bee keeping is part of system
- e. Gobar gas is used
- f. Vermi-compost is made
- g. Preparation of bio-pesticides; pesticides are not used for rice crops and vegetables
- h. Solar lamps; solar drier; improved stoves like Astra Ole
- i. Bettaland has more than 100 trees per acre; trees belong to at least 15 species/acre; at least 40 trees per acre are not lopped for leaves or branches cut for fuel.
- j. No fuelwood is purchased from outside
- k. No fulewood is collected from forest
- 1. Crop rotation is practiced in rice fields (mention what crops are grown after rice is harvested)
- m. List fodder crops grown in the farm (including grasses, shrubs and trees)
- n. At least one traditional rice variety is grown (mention name:.....)
- o. Poultry is part of farming system
- p. Fish farming is part of the system (name fishes in the pond.....)

J	) Village	environment	management

i) People's participation in environment management

	Environment management	Yes	No
a)	Village Forest Committee (VFC) is present in the village		
	<b>VFC</b> is active/inactive/ moderately active (tick right choice)		
b)	Biodiversity Management Committee (BMC) is formed in the		
	Panchayat :  BMC is active / inactive (tick right choice)		
c)	Peoples' Biodiversity Register (PBR) is prepared for the Panchayat		
d)	Meetings conducted on environmental awareness in the village/panchayat during last two years (give details if any):		
<b>e</b> )	The village has a Farmers' Union		
f)	The Farmers Union meets regularly to discuss about farming systems/ problems etc		

ii) List names of farmers who do fully organic farming

(without use of chemical pesticides and fertilizers) for any crops

Name of farmer	Crops grown without use of chemicals	For own use/sale

<sup>\*</sup>Use extra sheets for writing if necessary

iii) List farmers who use biopesticides

Name of farmer	Стор	Disease/insect	Describe bioipesticide used
	1/1/5	3 / / / 3	
		20	
		11 18	/

<sup>\*</sup>Use extra sheets for writing if necessary

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iv) What biopesticides are used by you?

Name of farmers	Crops	When you apply bio- pesticides?	How bio-pesticides are prepared by you	Expenses if any/gunta /acre

<sup>\*</sup>Use extra sheets for writing if necessary

**V)** Manuring/application of fertilizers

Name of farmer	Name of crops	Name manures used	Expenses per gunta/acre	Name fertilizers used	Expenses per gunta/acre

vi) Name chemical pesticides/fungicides used

Name of farmers	Crops	Names of pesticide/fungicides used	Purpose	Expenses/ gunta/acre
		9//		
		lehniitiin.		

#### 5) COOPERATIVE

#### i) Cooperative Societies

Notes on tribal co-operatives in the village/panchayat (eg. Siddi co-operative society for forest produce collection) Notes on other co-operative societies in the village

Co-operative societies	Main activities
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<sup>\*</sup>Use extra sheets for writing if necessary

#### ii) Name Self Help Groups/Sthree-Shakti groups in the village and list their activities

Name self help group	Туре

<sup>\*</sup>Use extra sheets for writing if necessary

# 6) COMMUNITY HEALTH

Visit a cluster of ten families representing different communities and list the health problems

Name of person interviewed	Health problems	Any remarks on treatment

<sup>\*</sup>Use extra sheets for writing if necessary

## 7) ANIMAL DIVERSITY

### A) Wild Life

Name	]	NUMBERS			Changes in numbers	
Name	Common	Moderate	Rare	Increasing	Decreasing	No change
Mammals (inclu	uding bats)	1100	065	ntin	22	
				MILLE		
				Y 34		
Birds	_		SALASO.	1		
			S. 1 S	1 123		
			1000			
			1444			
Reptiles (includ	ling snakes & t	urtles)				
			7			
			/-/-			
m. 1			000			
Fishes			1			
		C:	NIEND	11/1		
Insects (includi	ng butterflies &	k honeybees)	l	L		
•						
Other animals			,			

<sup>\*</sup>Use extra sheets for writing if necessary

B) Knowledge on wild animals

Name of person	C	Seasons	Where	Numbers		
interviewed	Species	present	present?	low	moderate	high

#### Note:

- Seasons present: Rainy season, cold season, summer season or throughout the year
- Where present: Habitat to be mentioned such as forest, scrub, field, garden, river bank, river, pond etc

#### C) Crop damage from wild life

Interview farmers on what damages are done to crops by wild animals in the village (write names of farmers interviewed and details of animals which create problem and the extent of damages they suffer)

\*Use extra sheets for writing if necessary

#### D) Attack on humans by wild animals

Any details on attack on humans by wild animals (including snake bites, attack on domestic animals) may be mentioned – number of cases during the last two years

\*Use extra sheets for writing if necessary

E) Write the names of plants that wild animals/birds feed upon

Name of persons interviewed	Name of wild animal/bird	Plant/plant parts used as food
CF	NTENNIN	

F) Name wild animals that seasonally visit the village

Persons interviewed	Animals which visit the village	Seasons of visit (months)	Any reasons why they come?

# G) Hunting

i.	Do people hunt in the village or outside? : yes/no
ii.	Which communities customarily hunt?
iii.	What are the animals/birds normally hunted within village?
iv.	What are the names of animals/birds hunted from outside the village?
v.	How far do the hunters go for hunting? Name places and distances from the village you are surveying
vi.	Do outsiders enter the village for hunting?
vii.	From where do outsiders come for hunting?
viii	Why do people hunt?
ix.	For food (mention names of animals/birds)
х.	For medicine (mention animals/birds)
	CENTENNING
xi.	For sale of meat/other products (mention animals/birds)
xii.	As part of their hunting tradition – hunting is compulsory for the community (mention names of communities which perform traditional hunting)
xiii	What are the restrictions on hunting followed by local people themselves?

#### H) Livestock

#### i. INFORMATION ON CATTLE, GOATS AND SHEEP OF THE VILLAGE

- 1. Cattle census: Attach livestock statistics of the village as available from the Panchayat veterinary officer or other sources (mention the sources) and year of statistics (include cattle, buffloe,oat, sheep nos.)
- 2. Interview some families on cattle nos and fill the following tables

Name of cattle keepers	Cows breed	Total
	1.	
	2	
	3.	
	Bulls/bullocks breed	
	1	
	2	
	3	

<sup>\*</sup>Use extra sheets for writing if necessary

ii. Interview some families on buffalo nos and fill the following table

Name of buffalo keepers	Buffalo breed (female)	Total
	1	
	2	
	3./_/	
	Buffalo breed (male)	
	1	
	2 NTENNIAL	
	3	

<sup>\*</sup>Use extra sheets for writing if necessary

iii. Interview some families and fill the table on Goats diversity

Name of persons	Goat breeds	Numbers

iv. Interview some families and fill the table on sheep diversity

Name of persons	Sheep breeds	Numbers

v. Details regarding Poultry farmers

Name of farmers	Chicken varieties	Numbers
	9,,	
	olohbatilly	

vi. Fodder availability

•	i odder avallability				
	Names of cattle keepers interviewed	Grass & leaves produced in own farm/fields qty/day/month/yr	Grass purchased from outside qty	Straw available from own fields	Straw purchased from outside
Ī			F/~~		
			Cares	8	
		CF	NTENNIAL		

vii. Do you sell grass and straw- if so answer the following

Names of farmer interviewed	Grass sold annually (qty)	Straw sold annually (qty)

viii. The places from where straw/grass is purchased from outside (include in the study also small farmers and landless having cattle)

Names of cattle keeper interviewed	Places from where grass is purchased (villages & taluks)	Places from where straw is purchased (villages & taluks)

# ix. Milk production (include in the study small farmers and landless also; conduct as many interviews)

Names of milk producers interviewed	Average milk production/day (ltrs) (tick right figure)
	< 1 lit/ 1-2 / 2-4 / 4-8/ 8-16/ >16/
	< 1 lit/ 1-2 / 2-4 / 4-8/ 8-16/ >16/
	< 1 lit/ 1-2 / 2-4 / 4-8/ 8-16/ >16/
	< 1 lit/ 1-2 / 2-4 / 4-8/ 8-16/ >16/
	< 1 lit/ 1-2 / 2-4 / 4-8/8-16/ >16/

x. Milk processing/marketing (tick whatever is applicable)

			uses	7
Name of milk producers interviewed	Name of milk producers interviewed	Milk used for home	Milk sold to dairy	Milk sold to villagers
	CFN	TENNIAL		

xi. Production of cattle dung

Name of cattle keeper	No. of cattle	Total no of baskets of dung/day

xii. **Uses of cattle dung** (how much dung used daily for gobar gas)

Names of cattle keepers	Total dung used for own lands (in baskets/carts)	Total dung sold to others in baskets/carts	Do you have gobar gas plant (mention capacity)	Gobar gas for cooking (Y/N)	Gobar gas for lighting (Y/N)

i. <b>Problems faced by cattle kee</b> (Write the names of persons i		eir problems)	
·			
. What are the needs/recommo			
gas etc. (Write names of person	ons interviewed and st	ate their recomm	endations)
	\$ 15 Mar.		

### I)Honey production

i. Honey production from the forest

Name of persons interviewed	Names of honey bee types in the village	How much honey is collected in a year	Quantity of honey sold	Months of honey collection
	CENTENNI	N		

<sup>\*</sup>Use extra sheets for writing if necessary

ii. Honey production by apiculture

Names of persons	No. of boxes	Annual production of honey	Qty sold

List types of honey available in the village (soapnut honey, mango honey etc.) (List names of persons who provides the information)
What are the plants which are very useful for increasing honey production? (List names of persons who provides the information)
What are your recommendations for increasing honey production in the village? (List names of persons who provides the recommendations)
List people who received training in honey production and processing? (add note on who gave training)
What are the medicinal uses of honey?

#### 8) ENERGY SOURCES

A) Availability and uses of plant fuel

	No. of	Plant		Sources of fuel	
Names of persons interviewed	members in the family	fuel used in kgs/day	Agricultural waste used (specify type and qty)	Firewood/leaves from own land (specify type and qty)	Firewood/leave s from forest (specify type and qty)

ist names (	Names	Type of stove used	ot gas stoves) users Advantages	Problems faced
ist names	of people using sol	ar lighting (try to	get complete inforn	nation on all users)
ist names (	of people using sol	ar lighting (try to Year of installation	Are you	nation on all users)  Problems faced
ist names		Year of	Are you satisfied with	

Names	Year of installation	Are you satisfied with the product	Problems faced
	CENTER	181181	

F) No.	of famil	ies havin	g cookii	ng gas in	the vill	age (LP	G) 	
G) Nai	mes and	addresse	es of peo	ple usin	g power	from m	icro-hydel	

#### 9) KNOWLEDGEABLE INDIVIDUALS (people with traditional knowledge)

**Note:** Village may have several people having knowledge in herbal medicines (*naativaidyaru*), special knowledge in agriculture, in preparation of bio-pesticides, grafting plants like mangoes, identification of plants and animals etc.

Name & address	Subject	Knowledge			
Subbaray Bhat, Muroor	Agriculture	Treating of plant diseases			
Devu Mukri	Naativaidya	Skin diseases of cattle			
Dinga karvi	Fishing	Fish breeding areas			
_					

<sup>\*</sup>Use extra sheets for writing if necessary

#### 10) Details on artisans of the village

(give details of people in carpentry, blacksmiths, ornaments making, wood carving, stone carving, pot making, shoe making, making of idols such as Ganapati using soil etc.)

Name	Sector (carpentry, wood carving etc.)	Remarks
	100	20,
		6

<sup>\*</sup>Use extra sheets for writing if necessary

#### 11) Details on fishing communities

**Note:** Interview five fishermen in the village

Name		Mention the villages adjacent to his fishing grounds					Мо	de of	f Fis	hing				
Fishing are	a()		Но	ook	N	et		awl net	n	rsei er et			i day wler	7
Sea	_ · ·					No	of d	ays o	of fis	shing	g()			
Estuary		Month	J	F	M	Α	M	J	J	Α	S	Α	N	D
river		No. of fishing days												
Backwater		Average												
Pond		Income/day												
others		No. of family n	neml	bers	depe	endi	ng o	n yo	u					

<sup>\*</sup>Use extra sheets for writing if necessary

#### 12) DETAILS ON SACRED FORESTS OF THE VILLAGE

(provide details on natural areas of worship such as jatakabana, hulidevarakanu, chowdibana, kapribana etc. or others)

Name of the bana	Name of the deity	Area (acres- gunta)	Ownersh ip Private/c ommunit y/govt	1	Vat	er so	urc	es in	or I	near	dev	vara	ban	a*(	)
				J	F	M	A	M	J	J	A	s	A	N	D

**Note:** A sacred forest should have minimum five trees

#### 13) MAKE A LIST SOME WILD PLANTS IN THE DEVARAKADU

		4 3	1 1 18
	Name of the bana	The Asset	plants
a)			20
b)			
c)			`
d)		1/-/-	

<sup>\*</sup>Use extra sheets for writing if necessary

#### 14) MAKE A LIST OF ANIMAL DIVERSITY OF DEVARAKADU

	Name of the bana	animals
a)		
b)		
c)		
d)		

<sup>\*</sup>Use extra sheets for writing if necessary

# 15) VILLAGE STATISTICS (collect details from village accountant's office from *Adarshatakta*) – attach separate sheet

# **16)** Village Map (**collect details from village accountant's office from Adarshatakta**) – attach sheet

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<sup>\*</sup>Water sources: If water sources such as springs, streams, ponds, wells etc if any in or near the sacred groves

<sup>\*</sup>Use extra sheets for writing if necessary