

Funa and flora checklist of Morwar Nalla in Pune Cantonment Board PCB (PCB), Pune

Period of study: 7th July 2006

Weather on 7th July: overcast sky with light drizzles on and off

Time: morning 7:45am to 10am

Areas visited By: Mr. Jayant Kanagane PCB, Sunil, Tasneem and Anchal Sondhi

Roughly about 2kms of Nalla flows from Section I to sec. II and till section IV. It flows underneath were ever road or some building

Section I

To right side just before Empress Garden while coming from Pul Gate, just beyond the Pul Gate Petrol Pump, there is small water body more like a pond with fresh water. This was a Quarry in the past and has filled up with rain water over the years. (I think there was a mention that this is fed with some streams as well, please could you verify that) The spill-over water flows via a Nalla called "Morwar" all the way towards RSI Golf course.

The PCB states that the water is non-polluted but this will have to verified with substantial records.

(Has there been a test conducted regarding water quality?)

(Is there water coming in from some nalla before this pond?)

Waster Hyacinth was exceptionally tall here in the pond and had covered about 75% of the pond. This section along with pond because of lovely tall and spreading Banyan trees on the other bank seemed to be very pristine and we saw a no. of birds in a short period of 15mins that we stood here. Had there been some Sunlight surrly the butterflies would have emerged in larger no. Other that the 2 which we could identify and see clearly. There were butterflies fluttering on the other bank near proposed eatery which we could not identify as they were a bit far. area approx 80,000sq. ft.

Section II

Now if you drive on further on the Solapur To RSI road and take a left turn towards old YMCA building and from roundabout take left again, you reach on Bishop school back gate road. To the right side of road there is a Nalla flowing and it stretches for 300m towards the back side of Gurdwara. And continues in section III

Sewage water enters this point along with spill over of Water works dept and passes from underneath the road to emerge in a small pool blocked by rock bund (presently broken) but will be renewed and will lead to a good 5ft ht cascade of water

To right of Nalla is the MSEB Sub station.

And u can walk back to wards Section II area is located off the YWCA when you enter the Bogra Walking Park

Part of back wall of Gurdwara and Nalla is covered by Aram "Arbi" and Canna plants which over the years have provided good vegetation cover. Mr. Jayant Kanagane of PCB informed us that this has resulted in Waterhens to nest here.

This garden was developed by Col. Patil earlier and presently maintained by 41 Artillery unit of Army.

Area : length of nalla about 300m, not so wide and Nalla is comparatively deep, as mud has been dumped and leveled on the right side. Not that water depth is higher in nalla but slope is sharp in contrast to other sections

Section III

A wide flat area around the nalla is present, reasonably undisturbed area

Area about 5 lac. Sq ft and length of Nalla is 600m

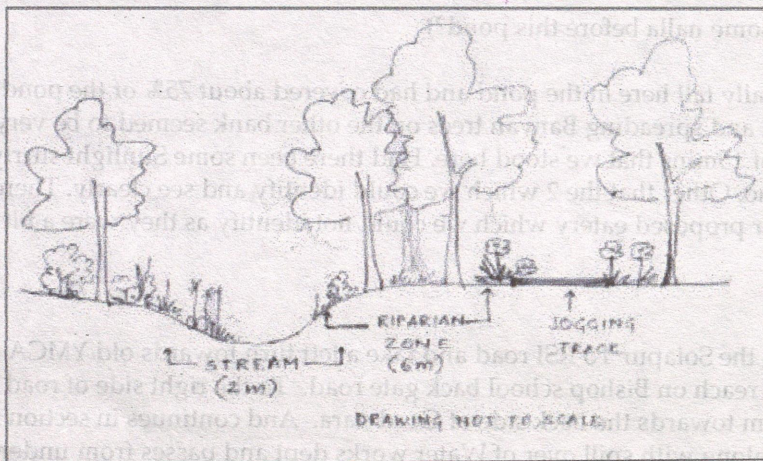
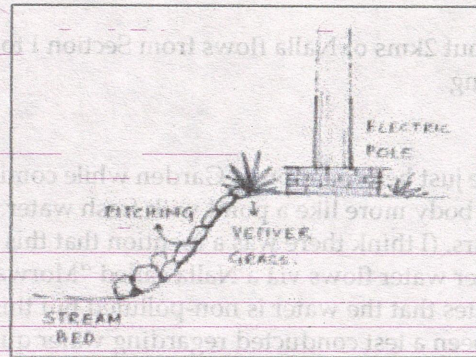
Sewage lines start to enter from here and water is let into nalla

Currently to leave certain sections relatively undtouched due to Waterhen habitat. More tree plantations suggested and a need to make pathways planned,

Section IV

So far least disturbed area. A Pipe line runs to the left side of the nalla as one enters it,

- ☛ Wetland plants have extensive root systems to foster large colonies of pollution-eating microbes.
- ☛ Pitching of the banks using natural boulders and stones, only at certain places, where there are electric poles.
- ☛ Riparian zone development:
 - Plantation of native trees (Refer List).
 - Plantation of wetland plants along the stream.
 - Total Protection.



Section III and IV

- ☛ Riparian zone development:
 - Plantation of native trees (Refer List).
 - Plantation of wetland plants along the stream.
- ☛ Nature trail / Jogging track could be developed (Refer sketch). No hard paving is suggested. 5 to 10 meters buffer zone has to be kept untouched.
- ☛ Interpretive signage could be put along the jogging track which can display the information about the local plants and birds and butterflies etc



Trees to be planted along such water edges

Slightly wide nalla. Natural vegetation seems to be there in Nalla and slope is very gentle. In side Nalla there is already a cemented carriage way and some pipeline but was hidden in vegetation and soil cover, so not sure. Need to confirm.

Area about 3 lac. Sq ft

Presence of Small Blue Kingfisher a Bio indicator species.

Indicator of water quality being reasonably clean and clear for it to catch food while skimming over surface.

List of butterflies

Picture Sno.	English name	Latin name	Observation details	Section (what is this mean Anchal)
1.	Common Crow	<i>Euploea core core</i>	Resting high on a tree	IV
2.	Plain Tiger	<i>Danus chrysippus</i>)	Basking in morning light scattered by clouds. Hoping for sunrays to engerise its wings. Pic by Tasneem	I
3.	Jezebel	<i>Delias eucharis</i>	Flying high in tree canopy	II
4.	Common Emigrant or Mottled Emigrant	<i>Catopsilia crocale</i> or <i>C. pyranthe</i>	Mostly lemon colour and sometimes white colour	I, IV
5.	Grass Yellow	<i>Eurema ?</i> Which out of 6 species not identified		All sections
6.	Tailed Jay	<i>Graphium agamemnon</i>		

List of spiders, reptiles, mamals

Sno.	English Name	Latin name	Observation and place	Remarks
1.	Five striped palm squirrel	<i>Funambulus pennantii</i>	Playing on the lower trunk of Babaul tree	Section IV

Birds checklist

Sno.	English Name	Latin name	Observation and place	Section
1.	Smaller Egret / Intermediate Egret	<i>Mesophoys intermedia</i>	Walking in nalla at the end of sec. iv It had the long drooping crest which it develops during monsoon season	IV
2.	Little Cormorant or Indian Shag	<i>Phalacrocorax niger</i> But could be <i>P. fuscicollis</i>	Flying overhead on pond	I
3.	Black Kite/Pariah Kite	<i>Milvus migrans</i>	Juv. Flying in end of section iv	IV
4.	White breasted	<i>Amaurornis</i>	One was possibly	I, IV

	Waterhen	phoenicurus	trying to cross the road and get to other side of Nalla, as was found foraging along the road Mostly in nalla	
5.	Common Myna	Acridotheres tristis	Juv. Spotted in beginning of sec. ii in a Banyan tree	I, II,
6.	Brahminy Myna	Sturnus pagodarum		IV
7.	Magpie Robin	Copsychus saularis		I, II, IV
8.	Grey Hornbill	Ocyrceros birostris	2 of them flew across over the pond from Banyan tree	I
9.	Ashy Wren Wabler	Prinia socialis	Across pond in proposed eatery area in sec. I	I
10.	Grey Tit	Parus major	Across pond in sec 1	
11.	Rose ring Parakeet	Psittacula Krameri	A flock of them flying from one tree to another in sec i Flock in section iv	I, IV
12.	Blue Rock Pigeon	Columba livia	Flew across	I
13.	Red Vented Bulbul	Pycnonotus cafer		all sections
14.	Red Whiskered Bulbul	Pycnonotus jocosus		
15.	Jungle Babbler	Turdoides striatus		
16.	Common Iora	Aegithina tiphia	Sighted in section ii beginning, else mostly heard the sweet call	II, IV
17.	White breasted Kingfisher	Halcyon smyrnesis	Across the water pond in the possible proposed eatery area in sec. i Behind Gurdwara section on overhead wire just above the nalla in sec ii (Tasneem took photograph)	I, II
18.	Small Blue Kingfisher	Alcedo atthis	Sitting on a stick sticking out of water inside nalla, flew as we were observing it along the nalla	IV
19.	Crow Pheasant	Centropus sinensis	Flew to a Babul tree and sat there for some time	IV
20.	Indian Plaintive Cuckoo	Cacomantis passerinus	Heard in section IV where the nalla opens into a pond	IV
21.	Purple Sunbird	Nectarinia asiatica		Most of sections
22.	Unidentified Wabler		Spotted on Singapore	

			Cherry tree	
23.	Pond Heron	<i>Ardeola grayii</i>	Walking in nalla at sec. iv	

Vegetation observed in each section (in short span of 10 -15mins per section . Need longer time and a Botanist to do it.)

Section I

Water Hyacinth (75% of pond coverage)

American Milkweed *Asclepias curassavica* (flowering and was attracting butterflies)

Banyan (Food plant of Common crow butterfly)

Babul tree

Subuabul *Leucaena Leucocephala* ?

Section II

Near Bishop Area

Castor (Food plant of Castor butterfly)

Babul

Banyan

Bamboo

Rain tree

Ashoka Tree (which spreads like a tree)in compound of Bishop school near nalla

Back portion of Grudwara near garden already developed

Canna

Karanj *Pongamia Pinatta*

Harsringar *Nyctanthes arbor-tristis*

Thivetia

Gulmohar

Banyan (Food plant of Common crow butterfly, which was sighted here)

Badam

Gular

Section III

Lantana,

Cassia Tora

American Milkweed

Section IV

American Milkweed *Asclepias curassavica*

Bamboo

Singapore cherry

Putranjiva *Putranjiva roxburghii* , Lots of trees

Babul

Aram "Arbi"

Cassia Tora (Food plant of Mottled Emigrant and Grass yellow butterfly , both butterfly were sighted but which sub species ?)

Ref:

"Birds of Pune" Kalpavriksh and CEE publication

"Birds of Indain Subcontinent" by Krys Kazmier czak

"Common Indian Wild Flowers" by Issac Kekimkar

"Common Butterflies of India" by Issac Kekimkar

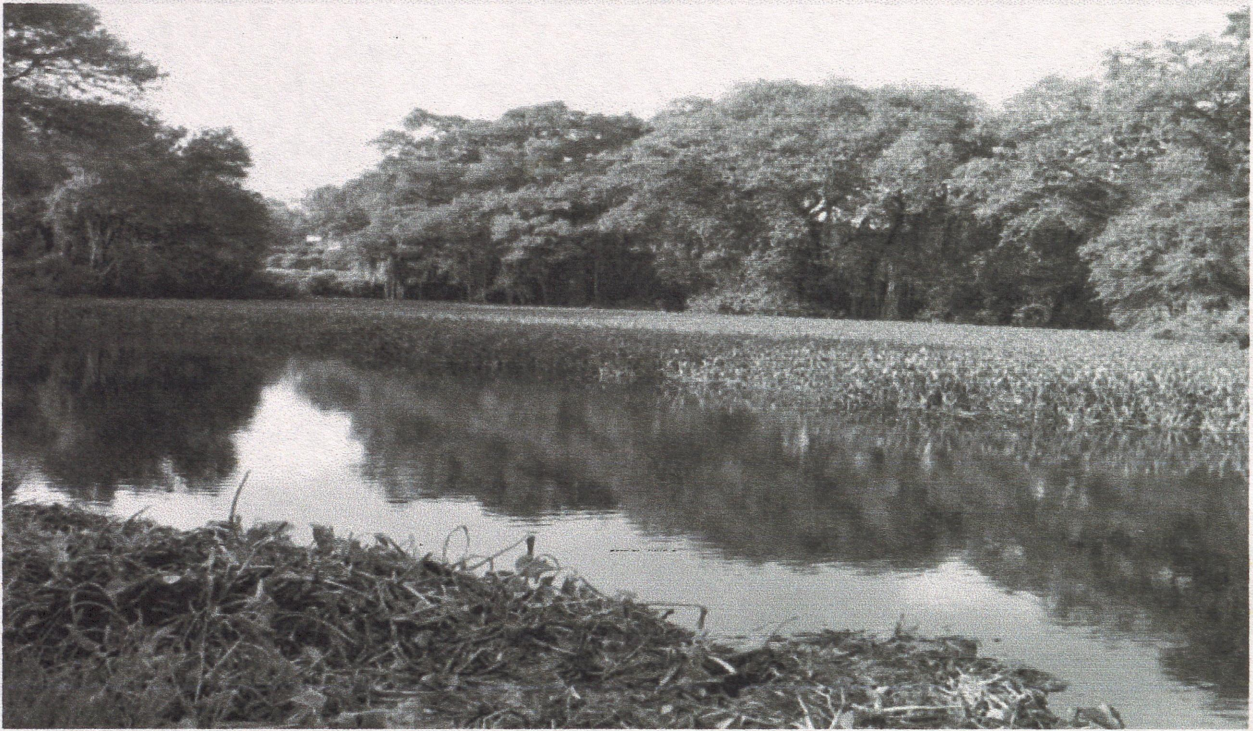
Trip report compiled by:

Anchal Sondhi

B 6 Kubera Gulshan, D P Road, Aundh, Pune 411007

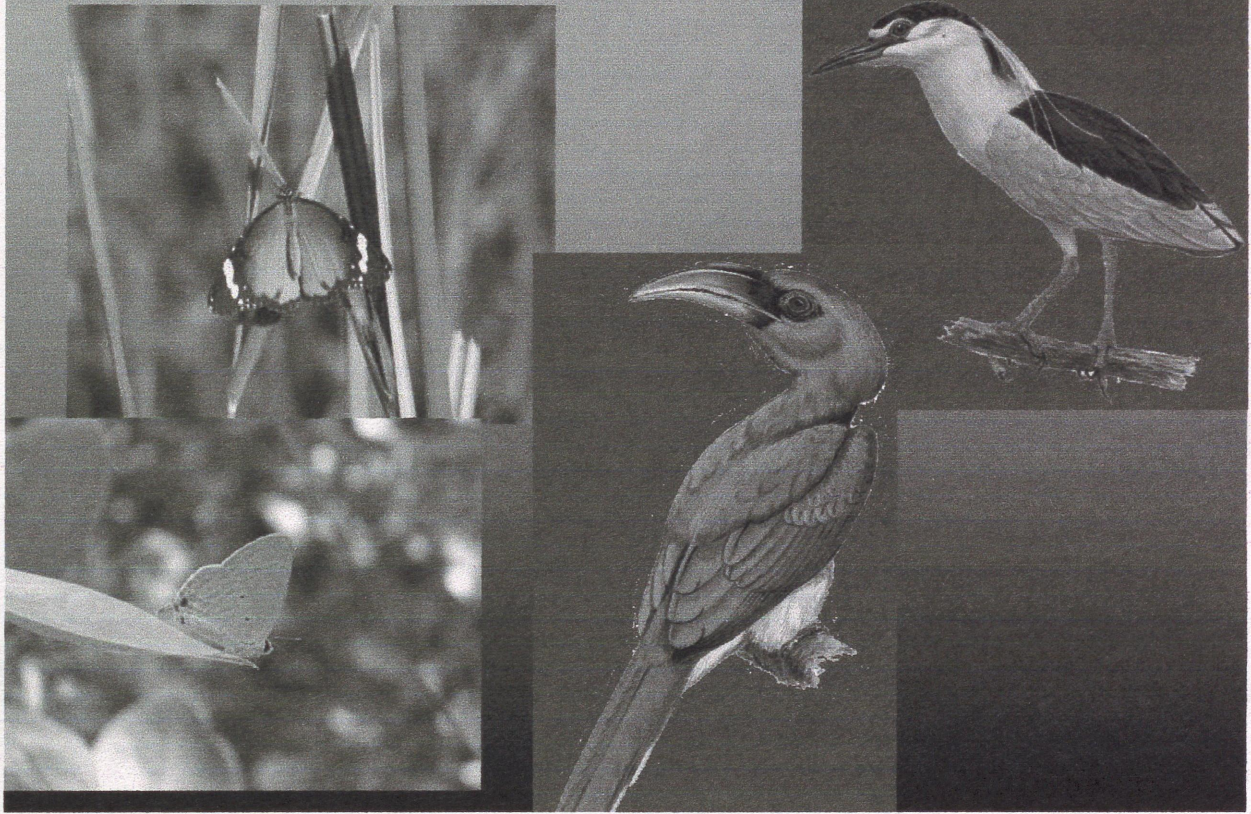
Tel: +91 20 25883391 Email: saysondhi@vsnl.net

Morvar Nala section 1



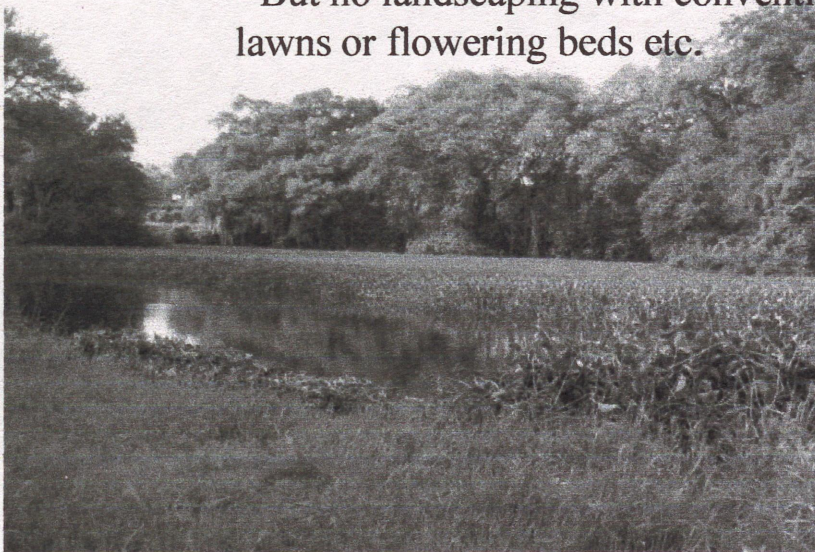
- Fresh water pond
- Wetland ecosystem
- Hardly any human disturbance
- Zero maintenance cost

Harbors a rich Biodiversity



Development plan for this area:

- Pond can be kept as it is.
- Timely harvesting of water hyacinth.
- Beautification: Some flowering wetland species like Ran us, Darbha and Halad kumku could be planted along the edge facing road side.
- Sit outs could be established by using eco boards etc.
- But no landscaping with conventional point of view like lawns or flowering beds etc.



Introduction of ducks
or other animals
interferes with the
aquatic flora and fauna
over a short period of
time i.e. 3 to 4 yrs

Hence best avoidable.



Section 2

Outlet from Bishop
School

Spill over from
Water Works

Root zone treatment
system to treat waste
water.

Various Wetland
plants, mainly reeds
like Typha, Phragmites
karka, Vetiver, Halad
Kunku etc.



Theme / Focus:

Conservation of stream and riparian zone.

Objective:

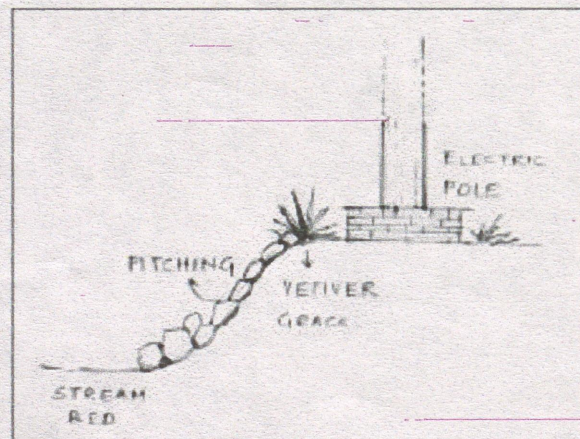
- To restore and enhance the natural features and processes of the stream.
- To conserve biodiversity i.e. floral and faunal diversity.
- To develop breathing places for human beings in a restricted area.



- Wetland plants have extensive root systems to foster large colonies of pollution-eating microbes
- Root zone treatment system to treat waste water. Various Wetland plants, mainly reeds like Typha, Phragmites karka, Vetiver, Halad Kunku etc.
- But for efficient treatment a patch of Phragmites karka (Boru) can be created near the culvert.



- Pitching of the banks using natural boulders and stones, only at certain places, where there are electric poles.



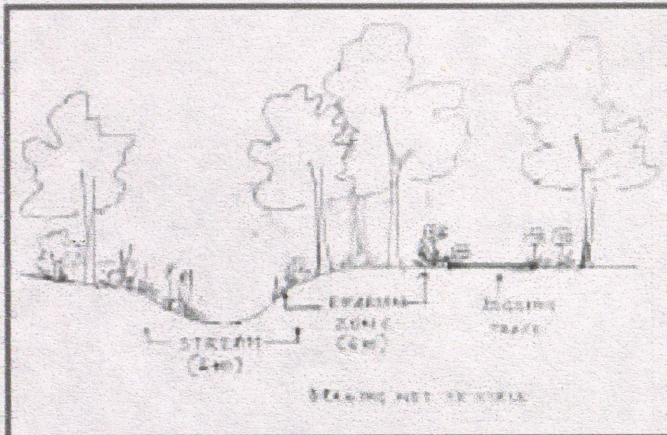
- Soil has been brought in large quantity and placed here. Ground cover is already altered and it has resulted in a steep slope along the nalla.
- The waders birds like Sandpiper, Waterhen, Wagtails prefer gentle slopes and such habitat are reducing all over city.



This was not the case before

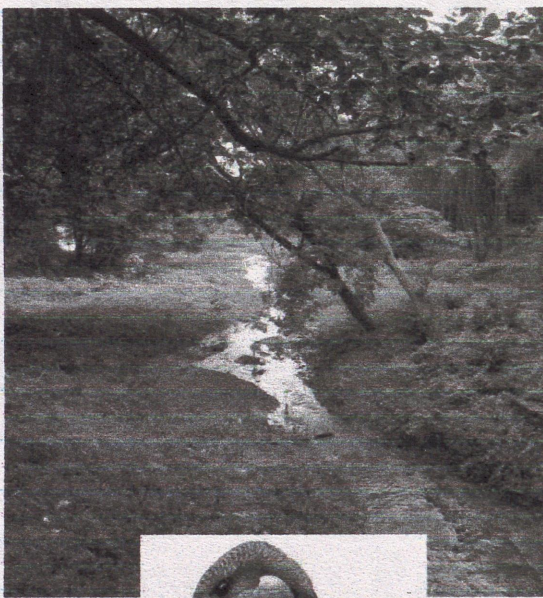


Section III and IV



Riparian zone development:

- Plantation of native trees (*Refer List*).
- Plantation of wetland plants along the stream.
- Nature trail / Jogging track could be developed (*Refer sketch*). No hard paving is suggested. 5 to 10 meters buffer zone has to be kept untouched.



Bio-indicator species.

Small Blue Kingfisher presences indicates the good water quality.

- Interpretive signage could be put along the jogging track which can display the information about the local plants and birds and butterflies

Small Blue
Kingfisher



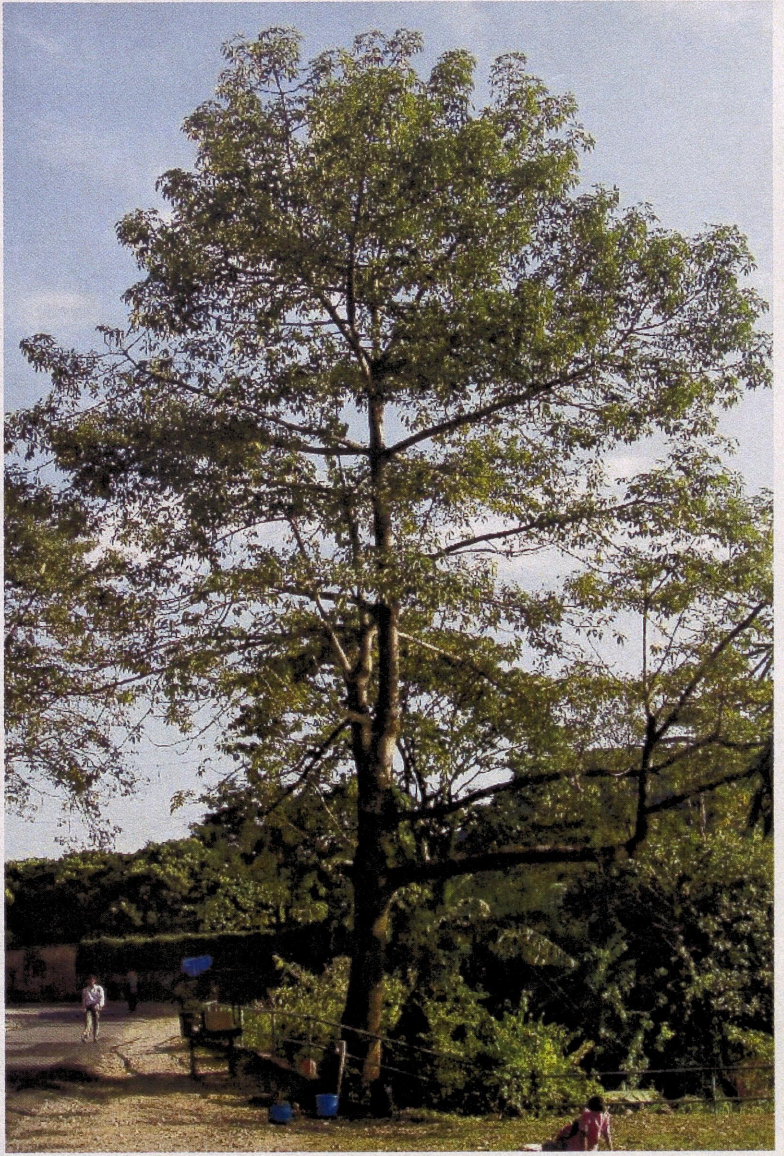


⑥

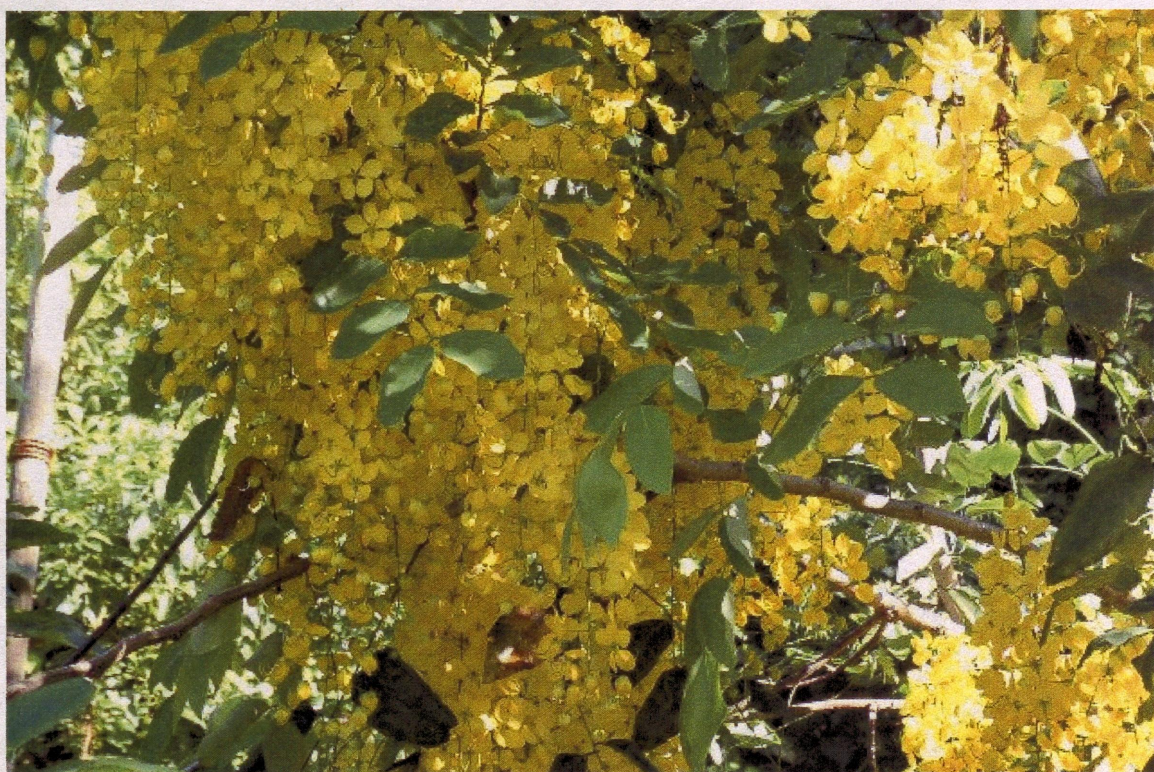


5





3



4

