



Parvatibai Chowgule College of Arts and Science
Autonomous

Accredited by NAAC with Grade 'A' (CGPA Score 3.41 on a 4 Point Scale in 3rd cycle)
Best affiliated College-Goa University Silver Jubilee Year Award

GREEN INITIATIVES

2017-2018



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REPORT ON EXTENSION ACTIVITY

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| Title: | Swacch Bharat Pledge Film |
| Date and year: | 29 th September, 2017 |
| Venue: | Parvatibai Chowgule College of Arts and Science (Autonomous) |
| Organising Committee | Chowgule & Company Private Limited, <i>Chowgule House, Mormugao Harbour, Goa Goa, 403803. (0832) 2777638 / 2525000</i> |
| No. of Participants | 20 |
| Objective: | The activity aimed at creating awareness on cleanliness and environment. |
| Summary of the proceedings | The students took part in Swacchta Pledge Film aimed at creating awareness on cleanliness and environment. The oath was administered by Principal Dr. Nandkumar Sawant and Sports director Dr. Bagchi. 70 students took part in the Swacchta Pledge. The video of the same was displayed on the college website. |



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| Title: | Inauguration of Butterfly Garden on the campus (Green initiative) |
| Date and year: | 02/10/2017 |
| Venue: | Parvatibai Chowgule College of Arts & Science |
| Objective: | To create an awareness on the importance of butterflies and to emphasize their role as bio-indicators. |
| Summary of the proceedings | <p>The college took an initiative of creating a butterfly garden in the campus, which was inaugurated on 2nd October 2017. With prior planning initiated in the month of July 2017, the final execution was completed on 2nd October. Relevance of Butterfly garden in ensuring clean environment are multiple. Besides being pollinators of many plants, they also serve as important part of the food chain. The most important feature is that Butterflies serve as an 'Ecosystem barometer' which that tells us about the health of our environment. These creatures are sensitive to changes in climate, the presence of harmful chemicals, pollution in the air and water, and any other changes in the environment. Presence of many species of butterflies on our campus is an indication that the Chowgule college campus is clean and healthy.</p> <p>The butterfly garden has different host plants planted in it which include both adult and larval feeding plants. The garden also has shelter providing trees and shrubs, water and substitute for nectar. It also has a board displaying the different species of butterflies found on the campus. The students painted iron racks for stacking flower pots and also installed the board. The garden will be maintained by the zoology students under the leadership of Dr. Nandini Vaz Fernandes. .</p> <p>The garden displays the photographs and names of butterflies present in the campus, recorded over a period of 03 years by Dr. Nandini.</p> |
| Photographs | |

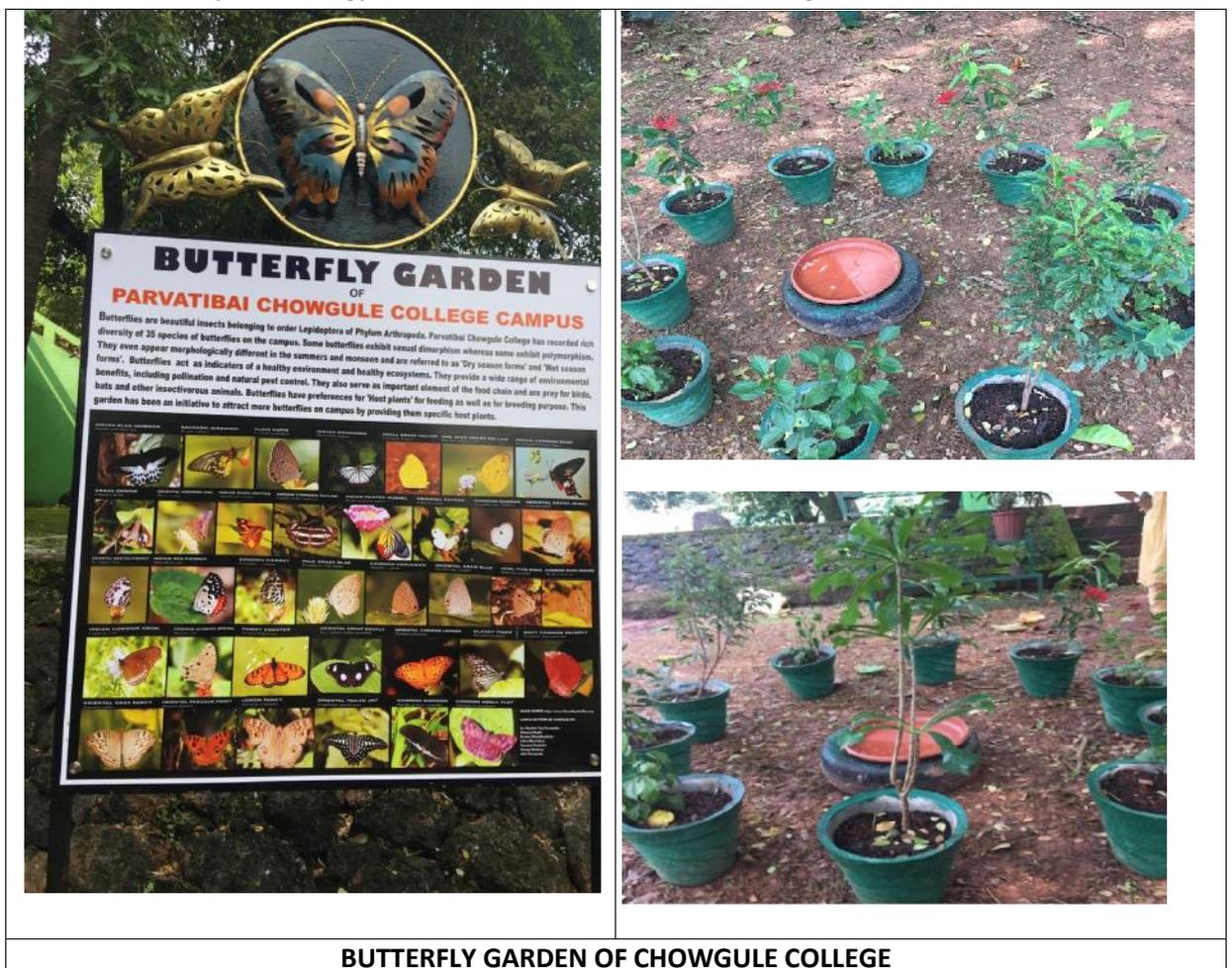
SWACH BHARAT INITIATIVES OF PARVATIBAI CHOWGULE COLLEGE

October 2nd 2017

1) Butterfly Garden:

The college took an initiative of creating a butterfly garden in the campus, which was inaugurated on 2nd October 2017. With prior planning initiated in the month of July 2017, the final execution was completed on 2nd October. Relevance of Butterfly garden in ensuring clean environment are multiple. Besides being pollinators of many plants, they also serve as important part of the food chain. The most important feature is that Butterflies serve as an 'Ecosystem barometer' which that tells us about the health of our environment. These creatures are sensitive to changes in climate, the presence of harmful chemicals, pollution in the air and water, and any other changes in the environment. Presence of many species of butterflies on our campus is an indication that the Chowgule college campus is clean and healthy.

The butterfly garden has different host plants planted in it which include both adult and larval feeding plants. The garden also has shelter providing trees and shrubs, water and substitute for nectar. It also has a board displaying the different species of butterflies found on the campus. The students painted iron racks for stacking flower pots and also installed the board. The garden will be maintained by the zoology students of the NSS unit of the college.



BUTTERFLY GARDEN OF CHOWGULE COLLEGE

2) Compost pit:

The college took initiative in disposing the organic waste on the campus in eco-friendly manner. For this purpose the NSS unit dug compost pits to degrade the organic material, such as leaves, grass clippings, and kitchen waste produced on campus. The compost created thereafter will be used as fertilizer for the plants on campus and the botanical garden. Compost provides many essential nutrients for plant growth and will therefore served as important substitute for fertilizer. It improves

the texture of both clay soils and sandy soils, making either type rich, moisture retentive, and loamy. Thus this initiative will ensure reduction in garbage volume, improve soil aeration and drainage and help us to reduce drastically the use of chemical fertilizers.

3) Eco-friendly waste disposal:

Being an educational institute, there is a lot of paper waste generated. The initiative taken to reduce paper waste is:

- a) Bins at multiple points – separate bins for dry and wet waste.
- b) Replacement of paper-correspondences by E-correspondences.
 - Assignments online.
 - Notices – emails / websites.
- c) Paper recycling: The old papers to be disposed off were collected from faculty and administrative offices and pooled to be disposed off for 'Recycling'. The paper was segregated to be sent to paper recycling company. Recycling of paper generates revenue and also helps us to save trees.



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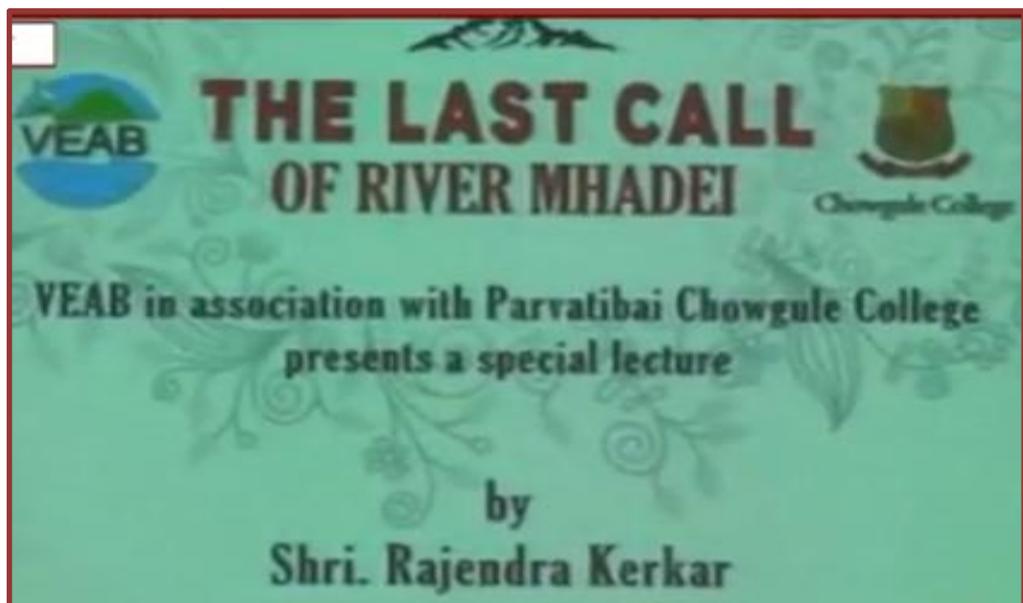
| <u>REPORT ON EXTENSION ACTIVITY</u> | |
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| Title: | Last Call for Mhadei |
| Date and year: | 1st February, 2018 |
| Venue: | Parvatibai Chowgule College of Arts & Science (Autonomous) |
| Resource persons: | Shri. Rajendra P. Kerkar, Environmentalist |
| Organising Committee | Vivekanand Environment Awareness Brigade (VEAB), Keri-Sattari, Goa, 403505. |
| No. of Participants | 47 |
| Objective: | A talk on River Mhadei diversion and its impact on the state of Goa was arranged to sensitise the students and public about the very vital issue for the state of Goa. |
| Summary of the proceedings | <p>A talk on River Mhadei diversion and its impact on the state of Goa was arranged to sensitise the students and public about the very vital issue for the state of Goa by Vivekanand Environment Awareness Brigade (VEAB), Keri-Sattari, Goa. Shri. Rajendra P. Kerkar, a prominent Goan Environmentalist was the resource person. In his talk, Shri. Kerkar highlighted the relevance of River Mhadei for the existence of people of Goa and the impact of its diversion. He appealed to the audience to take the issue seriously or else, it would mean a serious threat to the state of Goa.</p> <p>The Talk was attended by 2 Faculty members (NSS Programme Officers) and 47 students.</p> |



SHRI. RAJENDRA P. KERKAR



SHRI. RAJENDRA P. KERKAR DELIVERING PRESENTATION



PRESENTATION



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| Title: | Bird Walk for Swedish Delegates |
| Date and year: | 30/11/2017 |
| Venue: | Maina, Curtorim, Goa |
| Resource person/s: | Dr. Nandini Vaz Fernandes, CBC coordinators and members |
| No. of Participants | 25 |
| Objective: | To acquaint the Swedish delegates to the rich wetland diversity of birds found in Goa |
| Summary of the proceedings | <p>The Swedish Delegates were accompanied by the CBC coordinators and core committee members. The bird walk was held in a series of habitats viz. Wetlands, Woodlands, Agricultural areas.</p> <p>The birds that were recorded during the walk are as follows:</p> <ul style="list-style-type: none">• Grey headed swamp hen- A very large bluish-purple gallinule with a red bill and forehead shield and red legs and feet with long toes. The tail is flicked up often, revealing fluffy white “underpants.” Juveniles are duller than adults and lack the red bill and shield. A common inhabitant of marshy, vegetated freshwater bodies such as swamps, rivers, and lakes; usually in small groups. Feeds, often clumsily, at muddy water edges, in reeds, and on floating vegetation. Makes short nasal grunts and croaking sounds.• Oriental Darter- A waterbird with a very long, slender, snakelike neck, and a long, pointed bill. Breeding adults have a shiny black body with silvery-white streaks along the wings, a brownish crown and neck, and a white stripe running from the eye to the side of the neck. Nonbreeding and immature plumage is duller and browner. Frequently seen swimming with only its neck and head visible above the water. Impales fish underwater with its daggerlike bill. Like cormorants, often perches upright on a rock, drying itself with outstretched wings. Seen singly or in small groups in inland or coastal water bodies. Usually silent.• Little Cormorant- A small black ducklike waterbird with a distinctive flattish head and a bill that is sharply hooked at the tip. Smallest of the cormorants found in the region. Breeding adults have white plumes on |

the sides of the head. Like all cormorants, frequently seen swimming with its body low in the water, head and neck pointing upward, and suddenly disappearing underwater to catch fish. Often perches upright on a rock, drying itself with outstretched wings. Seen singly or in small groups in inland water bodies.

- Lesser whistling ducks- A small, well proportioned, tree-nesting duck. Pale brown overall with a darker brown crown and nape, warmer chestnut underparts, and chestnut-fringed feathers on the back. Note the nearly indistinguishable orange-yellowing and the dark gray bill and legs. Sexes similar; juveniles duller. A gregarious duck found in shallow water bodies with abundant vegetation. Flies with rapid wingbeats on broad dark wings flashing chestnut shoulders and a chestnut rump. Call is a wheezy whistling “seasick-seasick.”
- Oriental magpie robin- A medium-sized robin with a broad white wingbar running from the shoulder to the tip of the wing and white outertail feathers. Males sport black-and-white plumage while the females are grayish brown and white. Juveniles resembles females, but have a scaly head and upperparts. They have a good repertoire of melodious calls and are known to imitate other bird calls. The most commonly heard call is a whistle given at dawn. Most often seen singing from a high exposed perch. These birds are often seen in cultivated areas, woodlands, and gardens.
- Asian open-bill stork- A relatively small stork species with a grayish to white body and black wings and tail with a hint of gloss. The Asian Openbill gets its name from a distinctive gap in the dull grayish yellow bill. Note the pinkish legs. Asian Openbills inhabit wetland habitats including shallow marshes, flooded agricultural fields, and lakes. From a distance they could be confused with herons, but they can be clearly distinguished from herons by their feeding habits—wading slowly through shallow water.
- Wire-tailed swallow- A very distinctive swallow with two long, thin feathers on its outer tail from which it gets its name. It has brilliant glossy blue upperparts and a chestnut forehead and crown that contrasts with clean white underparts. Females and juveniles have shorter tails. Found in grasslands, wetlands, open scrublands, cultivated areas and in Africa often found near water. Typically seen in singles, pairs, or sometimes small flocks.
- Indian Paradise flycatcher- A graceful looking flycatcher, the adult male sport a long ribbonlike tail. The males occur in two color morphs

cinnamon and white. Both color morphs sport a glossy black head with blue ring around the eye, but white morph is entirely white below while the cinnamon morph has cinnamon upperparts and tail, and dirty white underparts. The females are cinnamon above with a grayish throat, a shorter tail, and they lack the male's blue eyering.

- Green bee-eater- A small dainty bee-eater that is intensely green overall with a greenish-blue throat, a thin black throat band, and long central tail feathers. In flight, note the dark edge along the lower border of the wings. Juveniles are duller than adults and lack the long tail feathers. In some parts of its range, birds may have a rusty crown or a bright blue throat.
- Blue-tailed Bee eaters- Elegant, slender bird of open country, frequently seen in flight or perched on exposed snags or telephone wires. Adult green overall, with blue tail, thin black mask, and rufous throat; bright rufous underwings visible in flight. Juvenile similar but paler, with tannish throat and shorter tail, lacking the adult's elongated central tail feathers.
- Indian Grey Hornbills- They are about 24 inches long. The upperparts are greyish brown and there is a slight trace of a pale supercilium. The ear coverts are darker. The flight feathers of the wing are dark brown and whitish tipped. The tail has a white tip and a dark subterminal band.
- Zitting cisticola- Very small, with distinctive short, rounded tail with conspicuous terminal spots. Body sandy-colored below, streaky above. Breeding males have a dark bill and crown. Found in open grasslands, meadows, and agricultural areas. Most often seen high in the sky uttering its monotonous and repetitive "tchip...tchip....tchip..." song in undulating song flight.
- Cotton pygmy goose- Tiny duck. Male has bright white head and neck with dark crown and eye. Female is plainer with a strong dark eye-line that does not continue back to the nape. In flight, females have thin white edges on the trailing edge of the wings, while males have big white slashes on the wings. Usually seen swimming in freshwater wetlands, including small ponds and farm dams, especially those with extensive floating vegetation.

Photographs



Bird Walk - Curtorim





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| Title: | Installation of Bird Houses - Green Initiative |
| Date and year: | 13/02/2018 |
| Venue: | Parvatibai Chowgule College of Arts & Science |
| Resource person/s: | CBC coordinators |
| No. of Participants | 25 |
| Objective: | Installation of bird houses in the college campus |
| Summary of the proceedings | <p>Bird houses were installed at various locations on the college campus, to provide shelter for small birds and encourage them to inhabit the campus niches. The student members of birders club installed the birdhouses, which housed soft natural material bedding and will serve as resting sites for birds. The birds that visit your backyard are a part of the whole ecosystem. The Importance of birdhouses can't be understated if you want to attract birds to your yard. Having a home for your feathered friends adds some interest to your yard and makes sure the birds will keep visiting. There are also many other bird house benefits, as well</p> <p>Bird Houses are often called nesting boxes because they provide a safe place for birds to build their nests, protected from the elements and predators. In the winter months, they give visiting birds a place to snuggle together for warmth away from the cold air.</p> <ul style="list-style-type: none">• Controlling pests. Since birds eat insects, they will help to eliminate unwanted pests in your yard and free you from needing to use otherwise harmful pesticides.• Weed control. Birds love to eat weed seeds. Gardeners do not like to weed. A Win win situation for all!• Flower pollination. There are many birds who love to sip nectar from flowers and help to pollinate. With the bee population diminishing, attracting birds who do this is sure to benefit your garden.• Conservation. Birds love native plants. If you grow these and then attract birds to your yard with bird friendly birdhouses, you will find that your gardening chores will diminish.• Property Values. A well maintained home with native landscaping that attracts birds has great curb appeal, which helps with property values. |

Photographs





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| Title: | Bird Walk |
| Date and year: | 09/08/2017 |
| Venue: | Borim, Goa |
| Resource person/s: | CBC coordinators and members |
| No. of Participants | 30 |
| Objective: | The students were introduced to birding in the field and bird survey methodology |
| Summary of the proceedings | <p>Preliminary survey of the birds at Borim was conducted by Reuben and Dheeraj. A total of 22 species of birds were observed. The most remarkable sighting was of the collared kingfisher and the night heron. Some of the birds observed are listed below.</p> <ul style="list-style-type: none">• Collared kingfisher- A mid-sized kingfisher with a variable plumage pattern; nearly 50 subspecies described worldwide. All of them have a greenish-blue crown, a white spot above the lores, a black mask extending down as a narrow band across the hindneck, and a white collar. Upperparts are greenish-blue, rump brighter blue, with blue wings and tail and white underparts. Female and juvenile slightly duller.• Night heron- Stocky heron with neck usually tucked in. Adults overall pale grayish with black cap and back. Red eyes. Juveniles noticeably different, brown and streaky with yellow eyes. Often crouched under overhanging branches during the day. Feeds nocturnally for fish, frogs and other prey. Where it overlaps with Yellow-crowned Night-Heron, note large teardrop-shaped white spots on wing coverts which Yellow-crowned lacks. |

- **Purple Heron**– large heron with rusty head and streaky neck. Has purple brown plumage with slate grey wings, reddish brown breast, black belly and reddish-purple flanks and scapulars.
- **Green Bee Eater**– A small dainty bee eater that is intensely green overall with a greenish blue throat, a thin black throat band, and long central tail feathers. Flies gracefully as it catches insects and other prey.
- **Ashy Prinia**– It is a small warbler. It has a black bill, pale cinnamon underparts, a gray head, and a greyish brown back. Nonbreeding birds acquire a short eyebrow and a longer tail.
- **Common Kingfisher**– small and often shy, and inconspicuous. Has turquoise green upperparts with brighter turquoise rump. Tail is blue. Wings are darker blue, finely spotted with turquoise on greater coverts. The underparts are rufous orange slightly darker on flanks. On the head crown and malar stripe are blue, finely spotted with paler blue and black.

Photographs



Bird Walk - Borim