

ISSN No. 0974-4134



# ENVIS NEWSLETTER

Centre for Environmental Studies (CES)  
Dept. of Forest & Environment, Govt. of Odisha



Vol-30, July - Sept., 2012

Supported by :

Ministry of Environment & Forests,  
Govt. of India, New Delhi

## From the Director's Desk...



Dissemination of information on various issues related to environment of the State is the main objective of establishment of our ENVIS Centre. We have discussed on various issues in our earlier publications. In this issue we have focused on one of the important topic "Kewda of South East Coastal, Odisha". I hope this issue of Newsletter will be useful for various planners, decision makers, scientists, environmentalists, researchers, academicians and other stake holders.

**Dr. Sailabala Padhi** , M.Phil, Ph.D., D.Sc.  
Director, Centre for Environmental Studies

## Kewda of South East Coastal, Odisha

### Introduction

Kewda (*Pandanus fascicularis*) plants (screwpine) are known to be distributed along the coastal belt of tropical and sub-tropical regions of the coasts of India, Java, Malayasia and China. A stretch of merely 40 km coastal line of Ganjam District from the river Rushikulya to the border of Odisha with Andhra Pradesh in the south has a unique distribution of Kewda mostly within a narrow range of 8-10 km from the sea. The local people have great fascination for the plants because of the scented flowers they produce.

### Origin of Kewda plant

In the tropical region of South East and South Asia various species of the genus *Pandanus* or Kewda plant are found. The



species *P. fascicularis*, *P. odoratissimus* and *P. tectorius* are much cultivated in the Indian East coast.

In Odisha the plants are found in Puri, Cuttack, Balasore, Jagatsingpur and Ganjam district. Particularly in Ganjam district the Kewda plant grows naturally and abundantly in some regions viz. Rangeilunda, Chatrapur, Ganjam, Chikiti and Gopalpur. They are salt tolerant plants growing in a marine habitat. Kewda is one of the flowers which is very dear and near to the Indian heart. In the Brahma's story it is mentioned that Kewda is the favourite flower of Lord Shiva. It has both ecological and economic importance.

### Ecological Importance of Kewda Plant

As it is a salt tolerant plant, it can be cultivated and irrigated with saline water, thereby conserving fresh water for other uses. Its prop and aerial roots strongly bind the soil, so it can be cultivated for landscape use. Besides these, like other plants Kewda plays a great role in pollution control, rain fall and provides shelters to many birds, reptiles, insects and micro organisms etc. forming a food web. This forms a natural biodiversity.

## Economic importance of Kewda plant

The economic importance of Kewda plant is also manifold. Each and every part of this plant has economic value and is useful directly or indirectly in one or in other way.

### A] Uses of Kewda flower

1. "Kewda attar", "Kewda water" and "Kewda oil" are extracted from Kewda flower.
2. Kewda attar is used for scenting clothes, bouquets, lotions, cosmetics, soaps, hair oils, tobacco, agarbati etc.
3. Kewda water is used for flavouring various food items including sweets, syrups and soft drinks.
4. Kewda flower is commonly used on festival occasions, weddings and other social functions in India.
5. The flowers are also used for hair decoration.



During interaction with a villager of Sindhigaon that Kewda flowers are sold for rupees thirty each during festive occasions and every year they were earning rupees 30 lakhs by leasing Kewda flower harvested from their village only.



### B] Medicinal value of Kewda

1. The Kewda oil is considered as a stimulant and antispasmodic and is useful in rheumatoid arthritis.
2. The Kewda flowers are acrid, bitter, aphrodisiac, demulcent and anodyne and are used for a variety of head and skin problems.
3. The anthers and tops of the bracts of flowers are powdered and inhaled like snuff to treat epilepsy.
4. The anthers of male flowers are given in earache, headache and diseases of blood.
5. Cigarettes are made of the interior of the anthers and smoked to treat sore throat and other throat problems.
6. The juice of the flower with out spathe is quite useful to treat rheumatic arthritis in animals.

### C] Uses of Kewda leaves

The leaves are acrid, bitter, alexeteric, aphrodisiac, depurative and somniferous.

1. They have been used for treating leprosy, syphilis, small pox, scabies and diseases of the heart and brain.



2. The spiny, fibrous leaves of Kewda plant find use in making matting, cordage, hats, bags, and baskets.
3. In some localities the leaves are also used for making papers and thatching the roofs of homes.

### Uses of Kewda Roots

The roots are bitter, sweet, acrid, termogenic, emollient, depurative, antiseptic, cephalic, carminative deodorant, supportive, stomachic, vulnerary, febrifuge, soporific and tonic.

1. They are employed to treat leprosy, wounds, ulcers, skin diseases, flatulence, colic, fever, diabetes, sterility, general debility, spontaneous abortions etc.



2. In Ayurveda these are useful in vitiated conditions of "kapha and pitta".
3. The roots are also fibrous in nature and find a place in basket making as a binder.
4. A type of local paint brush is made by cutting the roots into lengths and then pounding them out forming a coarse painting surface.

Some other species of Pandanus are also valuable because of their edible fruits.

*Pandanus fascicularis* grows on a small tree or shrub which can be cultivated but in the coastal area of Ganjam district of Odisha it grows wild as a gift of the nature. This valuable Kewda flowers seem to create their most exquisite floral bouquet in certain coastal localities, the most famous being the Ganjam district of Odisha. The flowering period of Kewda vegetation can be broken up into three distinct seasons.

1. Summer season (April-June) 30% of total yield,
2. Rainy season (July- September) 60% of total yield,
3. Winter season (October-December) 10% of total yield.

Within each of these seasons there is forty day period when the flowers are harvested.

In Odisha about 200 kilos of Ruh Kewda are prepared each year at a cost of rupees 3,50,000 per kilo as compared to rupees 75,000 to rupees 90,000 for fine attar. About thousand flowers produce 1 ounce of Ruh Kewda , The Ruh is very very potent.

In Ganjam district itself, where the finest conditions exist for growing Kewda , it has been estimated that every year nearly 3,00,000 to 4,00,000 trees produce about 10,000,000 male inflorescences which are used for the preparation of attar, ruh and hydrosol.

The commercial use of this plant is mainly centered at Kalipolli, Meghra, Patrapur, Sindhigaon, Jagannathpur, Chamakhandi, Matikhal, Badapur, Badaputi, Laxmipur, Totapalii etc. in Ganjam district of Odisha.

About 200 villages in the coastal region of Ganjam district earn their livelihood directly or indirectly depending upon the Kewda plant. As told by a few villagers of Patrapur that till date 10 distillery plants (SSI) are working in the remote villages in extracting oil from Kewda plant. Perhaps these plants are working without the knowledge of administration. The villagers of Kalipolli say that they were earning 7lakhs per annum from Kewda vegetation where as Sindhigaon only earn about 30 lakhs per annum. Indeed Kewda was the bread of the rural poor in Ganjam Hinterland.

Kewda plant which is a part of natural biodiversity has both ecological and economical importance in Ganjam economy as its contribution to the national perfume trade



is about 50%. Above this 90% of Kewda flower produced in the country comes from Ganjam Hinterland. In this context the ecological and economical importance of Kewda vegetation in Gopalpur Hinterland can not be over looked for an industrial cause.

However it has long been recognized that for any developing country, particularly a country like India, with massive population and resource problems, a high rate of economic development is essential for breaking the vicious circle of poverty. It should be very clear that in the process of economic development of India, there is really no conflict between agriculture and industrial development. They have their own role to play. Thus the development of industrial, agricultural and other sectors of the economy is interrelated and complementary and one cannot go too far without the other. In this context it can be said that industrialization secures a faster rate of growth compared to agriculture. The net value of output per person is higher in industry than agriculture due to greater scope for internal as well as external economics. Economic development and industrialization are closely associated and economic development can not be explained without referring to Industrialization, Thus industrialization Is an important part of economic development process and It Is desired as inevitable concomitant of economic development.

The competence of any government and the people of the underdeveloped countries can be visualized from rapid industrialization. From the experience of the industrialized countries, it is revealed that industrialization as a factor of economic development has been the result of simultaneous promotion and growth of large scale industrial sector and small scale industrial sector. They are considered to be the two wheels of the vehicle of

industrialization. Developments of both sectors are equally important to bring about a radical transformation in the economic structure of a country. This is confirmed from the experience of many developed countries like U.S.A, Japan, Australia etc. Coming to the coastal district of Ganjam the people were totally dependent on Kewda vegetation to earn their livelihood and at the same time contribute to national economy.

In the context of global warming “protect plant or perish” is the thumb rule of 21<sup>st</sup> century. Nature has gifted us this valuable and excellent Kewda plant which is a part of natural biodiversity. So no one has the right to threaten a species for right to existence. Men, being rational and homo sapiens, they should refrain from actions that would erode species but do everything to protect them from extinction. This will not only protect the environment but also enable smooth survival of human life.

Thus, all species are equally important for the sustenance of all human and sub-human species.

But the unlimited greed of men is threatening the healthy and diverse biological

order that needs immediate rectification. To be successful in the field of industrialization, Govt, should plan an appropriate industrial policy by taking into consideration the socio-economic conditions of the specific region. In the coastal region of Ganjam district if Govt, would have encouraged the following:-

1. Plantation of Kewda vegetation in large scale engaging the villagers.
2. Procurement of Kweda and its storage providing cold storage facility.
3. Establishment of distillery plants with advanced technology for extraction of oil and attar from Kewda vegetation.
4. Linkage with inland and global markets for its proper marketing, then the ousting of people from the land and their household and their resentment too would have been easily avoided. Tata could be provided required amount of waste land in Ganjam district with railway facilities, ample water facilities for establishment of a Still Plant.

This would have made the frustrated villagers to be choice based entrepreneurs in

various fields’ viz. cold storage owners, small scale industrialists, owners of export agencies and other auxiliary industries by providing them employment opportunities. Thus the socio economic condition of the villagers of Ganjam Hinterland would have developed with the development of National Economy.



## Celebration of “National Energy Conservation Day” on 14th December 2012 at Jaydev Bhawan, Bhubaneswar

Centre for Environmental Studies under the Department of Forest & Environment with the support of State Designated Agency under the Energy Department organized the “National Energy Conservation Day” on 14<sup>th</sup> Dec. 2012. For this programme, Centre for Environmental Studies had conducted energy conservation quiz competition for the students of the schools of Odisha from Class-VII to Class-X in Block, District and State level. District level written quiz competitions had been conducted from 8<sup>th</sup> to 11<sup>th</sup> December 2012. 9135 students have been participated in all 30 districts of Odisha. From

awarded with certificate & cash such as Rs.1000/-, Rs.700/- & Rs.500/- respectively in all Blocks of Odisha.

A State level function was arranged in Jaydev Bhawan, Hon’ble Chief Minister, Odisha was the Chief Guest & Hon’ble Minister, Energy, Odisha was the Guest of Honour. Commissioner-cum-Secretary, Energy Department; E.I.C.(E)-cum-PCEI & SDA, Odisha and Director, Centre for Environmental Studies was present. Hon’ble Chief Minister distributed prizes to winner students. Dignitaries from Forest Department,



the district level competitions, six students from each district (184 students) had participated in the State level energy conservation quiz competition in Jaydev Bhawan, Bhubaneswar on 14.12.2012 at 09:00 AM. Best 37 participants awarded with certificate, trophy & cash. For better awareness, a mass rally had been conducted from Kalinga Stadium, Bhubaneswar to Power House Square in which about 650 school students have been participated on the eve of “National Energy Conservation Day-2012”. Similarly block level written quiz competitions organized on 14<sup>th</sup> Dec. 2012 in 314 blocks of the state. In Block level competition, 1<sup>st</sup>, 2<sup>nd</sup> & 3<sup>rd</sup> students

Environment Department, Energy Department, students and general public attended this function. The special booklet on “Energy Conservation & Management” was released by the Hon’ble Chief Minister of Odisha.





Release of Book on “Energy Conservation and Management” by (L-R) Sj S.K.Rehaman, E.I.C.(E)-cum-PCEI & SDA, Odisha, Sj P.K.Jena, IAS, Commissioner-cum- Secretary, Energy Department, Sj Naveen Patnaik, Hon’ble Chief Minister, Odisha, Sj Arun Ku. Sahoo, Hon’ble Minister, Energy, Odisha and Dr. Sailabala Padhi, Director, Centre for Environmental Studies on the occasion of Energy Conservation Day-2012.

**For Subscription & Query; Please Contact to :**

**Centre for Environmental Studies,**  
 Forest & Environment Department, Government of Odisha  
 N-1/247, IRC Village, Nayapalli, Bhubaneswar-751015  
 Tel. No.- 0674 - 2551853; Fax- 0674 - 2553182  
 e-mail: ori@envis.nic.in & cesorissa@rediffmail.com  
 URL - www.orienvis.nic.in & www.cesorissa.org

*This newsletter is also available in electronic form at our website: [www.orienvis.nic.in](http://www.orienvis.nic.in) and [www.cesorissa.org](http://www.cesorissa.org)*

**ENVIS EDITORIAL TEAM**

Dr. Sailabala Padhi, M.Phil, Ph.D., D.Sc., Director  
 Pravat Mohan Dash, Programme Officer  
 Prashanta Ku. Nayak, Information Officer

**Disclaimer :**

Entire information in this Newsletter has been collected by Dr. Sailabala Padhi.

**BOOK POST**

*If undelivered please return to :*

**ENVIS Centre**  
 Centre for Environmental Studies  
 Forest & Environment Department  
 Government of Odisha  
 Plot No. - N-1/247, IRC Village,  
 Bhubaneswar-751015, Odisha

To,



\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_