

Pakistan's first international award winning magazine on environment and health

a greener vision

subh nau

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**Fighting climate change
and COVID-19 with plantation**



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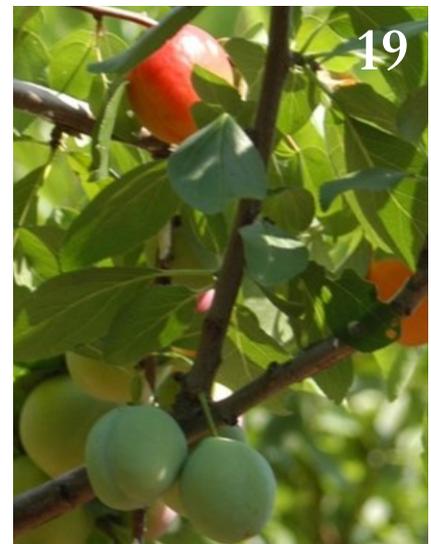


With the plantation season coming this March, we must plant trees to fight climate change and COVID-19 as well, not only for our sake but for our future generations.



Fighting climate change and COVID-19 with plantation

Pakistan still faces enormous challenges with the recent and ongoing COVID-19 crisis, which continues to spread with variations.



Plantation for a resilient economy

Pakistan's agrarian economy will only receive a boost from the plantation of supporting green cover to empower most of our poor population who depend on it for livelihood.

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Chief Editor's Message

The plantation season this March asks us to take an active role in saving Pakistan and the planet from the ravages of COVID-19 and climate change. Preserving our environment with afforestation is akin to playing a key role in adding to our natural reserves. By ensuring that we preserve our forests and enhance existing forest cover means we have more natural carbon sinks to absorb Carbon Dioxide, a most dangerous greenhouse gas.

This month's cover story details the various ways in which we can plant indigenous trees across Pakistan and do our part in increasing green cover. Saving water is also highly important in this era of climate change and a means to support plantation. Rainwater harvesting and conservation strategies must be part and parcel of our strategies for a greener Pakistan. The Billion Tree tsunamis is a great initiative in this regard, and efforts to green urban spaces is crucial now as well.

Pakistan's deforestation must be curbed for the sake of a better environment. We have a lot to gain, not only survival from present crises and challenges, but a better quality of life for our citizens, and a flourishing nation.

Shahida Kauser Farooq
Chief Editor

What is Subh-e-Nau

This journalistic endeavor primarily focuses on the environment and public health sector, and is published every month. The dismal state of affairs in this sector demands public awareness and community involvement for the protection of our natural environment. The magazine cuts across a diverse range of environmental issues, which require thought and conveys action-oriented messages for the general public and decision makers.

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Letters to the Editor

Cover Story February 2021

The role of USA in global affairs cannot be underestimated. I liked the cover story for its positive stance on the promises made by the newly elect president Joe Biden. The issue of climate change is particularly high priority and with the US joining the Paris agreement, much effort can be now directed to address this growing global threat.

Naila Mehmood, Islamabad

The cover story provided good coverage of what to expect from the new US government. With a commitment to redressing and attending to the most urgent needs, it is indeed a welcome sign that the Biden-Harris team will bring about positive change for their country and for the rest of the world. Pakistan has a chance to be a productive ally and focusing on these areas for a change as well. Let's hope for the best!

Naseer Javed, Karachi







Fighting climate change and COVID-19 with plantation

Pakistan still faces enormous challenges with the recent and ongoing COVID-19 crisis, which continues to spread with variations.

The COVID-19 pandemic has emerged as a global threat with more than 2.4 million deaths to date and ongoing infections, including tragic losses in Pakistan. These resulting tragedies are combined with the social, health, and economic impacts of mitigation efforts to slow disease transmission through shifting human relations. This is mainly to limit exposure using preventive practices, such as social distancing which restrict citizens to remain with a distance at a minimum of 2 meters. Protective measures such as wearing masks is also critical, along with frequent washing of hands.

Pakistan has failed at times to take the safety recommendations for proper lockdown times and practices of social distancing, and as a result are facing the rise in cases in most cities which is requiring strict measures by authorities. Since the transmission of the virus responsible for the pandemic travels through the air, this is the most effective measure to date. Countries and cities that have and are practicing this are experiencing a recovery from this

menace. Environmental factors regarding COVID-19 are also uncertain, so we must be careful in not assuming that the upcoming spring and summer will lead to any loss of cases, as it spreads rather rapidly, as the second wave has shown.

The dangers of COVID-19 are eye openers which should keep us awake to all our wishful thinking at bay, and with the ongoing climate change impacts in the foreground. While it is good to imagine effective ways to deal with it as well, please we should make sure that we are practicing social distancing and self-quarantine if needed, while not clustering in groups and social activities.

In this regard and in view of the present opportunity to green Pakistan for the upcoming plantation season, we recommend that plantation be carried out by citizens in a safe manner, following all the safety protocols including by not clustering into groups for such activities. Subh-e-Nau played a key role in advocating for a “National Day for Plantation”, which is now mandated on August 18, but we must begin now



“ In these rather challenging times, it good to remind ourselves of Prophet Mohammad (PBUH) who stated:“If the Hour (the day of Resurrection) is about to be established and one of you was holding a palm shoot, let him take advantage of even one second before the Hour is established to plant it.” ”

(Authenticated by Al-Albani).



Photo Credit: Shahid Rashid Awan

| As a 'green stimulus', Pakistan sets virus-idled to work planting trees |

and plant all year long, while following all safety protocols, towards making Pakistan truly clean and green. In these rather challenging times, it good to remind ourselves of Prophet Mohammad (PBUH) who stated: “If the Hour (the day of Resurrection) is about to be established and one of you was holding a palm shoot, let him take advantage of even one second before the Hour is established to plant it.” (Authenticated by Al-Albani).

Practically implementing such timeless wisdom first shows the commitment of the government and authorities in restoring the natural beauty and well-being of Pakistan. It

would also project our nation as a peace loving and environmentally conscious member of the world community.

Deforestation is at the root of most of our environmental degradation and climate change evils and curbing it in the time of the COVID-19 crisis is even more important. The loss of forests has also led to loss of biodiversity habitats, which increases the probability of human-to-animal transmission of viruses. The results of afforestation, especially in the cities, provide protection against future pandemics, and will rejuvenate Pakistan in all sorts of ways will bring our communities and together and unite them for just causes. The



notion of rapid urban forestry is important, and this will complement existing efforts by our government such as the Billion Tree Tsunami campaign. Additionally, in such plantation drives, we enhance the civic duty and responsibility that is incumbent on our youth. Pakistan sits well below a precarious 5% forest cover, against a required 25%; this cannot be simply be reached by the government and authorities due to limited resources.

A top-level coordinating body should be formed under the Chairmanship of a high ranking official, which exclusively handles and monitors this on a regular basis as the implementation period is short. The other option is to entrust the whole responsibility to one Department that can supervise the implementation of activities from the top right down to the grass roots level, addressing all problems along the way.

The “National Day for Plantation” should be formally embedded as a part of our legislation. Following the declaration, a national policy should follow, the planning of which should start in parallel to the declaration. The national

“ Deforestation is at the root of most of our environmental degradation and climate change evils and curbing it in the time of the COVID-19 crisis is even more important. The loss of forests has also led to loss of biodiversity habitats, which increases the probability of human-to-animal transmission of viruses. The results of afforestation, especially in the cities, provide protection against future pandemics, and will rejuvenate Pakistan in all sorts of ways will bring our communities and together and unite them for just causes”





policy should be debated in the national assembly and adopted so that this becomes part and parcel of celebrating every season by plantation in the future. In this way, it can be ensured that this will not just be a one-time activity by the Government in power, rather a milestone to be remembered by the future generations.

The rest of the campaign should focus on involving people at the grass roots level and promote water conservation. City Governments should be entrusted the responsibility of identifying places, supplying plants and assisting people so that Pakistan is literally transformed to a greener cleaner nation. At an individual/family level, people should be encouraged to use water saved in the kitchen, for example, after washing edibles such as vegetables, fruits etc. or after 'wuddoo' (ablution) for watering plants.

With the ever-growing demand of water, and the known adverse impacts, the demand for rainwater recycling systems

all over the world is on the increase. Pakistan should embrace these methods, as western Britain, China, Brazil, Thailand, Sri Lanka, Germany and India are all using these techniques. These methods are not rocket science – by working extensively on rainwater harvesting and wastewater treatment across Pakistan, we will make sure that we are not only addressing the drought situation by storing rain, but also, in addition taking into reusing a relatively pure form of water naturally available to us from the skies above.

Water conservation together with plantation

Water is used in everyday life, oftentimes wasted away due to inefficient means employed. It can be recycled, for example, we can save this precious resource after completing Wudu (ablution for prayers) for plants. Similarly, after washing clothes the same water can be used to wash the floors and toilets. Instead of washing cars with a pipe, we can use a bucket



“To mobilize our actions against climate change, environmental degradation and COVID-19 crises as well as future pandemics, we must carry on plantation and water conservation across 2021, with all the safety measures including social distancing and wearing protective masks”

of water or wipe it with a wet cloth. Whenever a need for hot water arises, the cold water already in the pipes is lost. We can save this water by using a bucket or other container. This clean water can be further used for watering plants and trees. This water can also be utilized in the pipes can be kept warm if the pipes are insulated.

Another source of the losses incurred is by flushing water. Latest technology must be used to reduce water losses, for example, low volume flush tanks can reduce the water consumption to one third. Considering the various factors associated with water as resource, an emphasis on the simplest measures that comes to view, is common sense conservation of water. As an organization, Subh-e-Nau advocates this line of

thinking as a common theme to all the solutions provided or in consideration. The stresses due to climate change and changing weather are not good indications of what lies ahead. We must stop leaks, invest heavily in rainwater harvesting and into individual conservation measures as well, especially during a time of the COVID-19 global pandemic.

Rainwater harvesting

To start, rainwater harvesting is the gathering and storage of rain from roofs or from a surface catchment for various uses. This notion of is well documented from pre-Roman times and on all the major continents, although in industrialized countries, until recently, the practice had





largely expired away with the introduction of reliable mains-supplied water. The water is generally stored in rainwater tanks or directed into mechanisms, which recharge ground water. Rainwater harvesting can provide lifeline water for human consumption, lessen economic burdens and the need to build reservoirs, which oftentimes require the use of valuable and fertile regions.

Traditionally, rainwater harvesting has been practiced in arid and semi-arid areas, and has provided drinking water, domestic water, water for livestock, water for small irrigation and a way to replenish ground water levels. However, this can easily be extended towards urban areas where similar benefits can be achieved.

To mobilize our actions against climate change, environmental degradation and COVID-19 crises as well as future pandemics, we must carry on plantation and water conservation across 2021, with all the safety measures including social distancing and wearing protective masks.

Subh-e-Nau Plantation Campaign 2020: Green Pakistan across 2021

With the ongoing COVID-19 crises, all plantation activities will be done without clustering in groups, with social distancing and wearing safety devices such as masks, in the spirit of educating the participants, especially the youth emphasizing that their efforts are needed for the very survival of the planet as well as making Pakistan an evergreen nation in the process. Our approach in this plantation season would be to raise awareness, provide information to citizens interested in individual activities. Geared towards involvement from community at all levels, plantation campaigns by SN are done with sustainability as well as placing indigenous plants as the only choice.

Indigenous tree species should form the key components of any plantation drive, not just this coming August and there are good scientific and health reasons for doing so. As is



“ Indigenous tree species should form the key components of any plantation drive, not just this coming August and there are good scientific and health reasons for doing so. As is unanimously voiced by experts, this may take time; however, is the only way to ensure a long-term stability of our environment ”

unanimously voiced by experts, this may take time; however, is the only way to ensure a long-term stability of our environment.

Plantation activities will be lobbied to occur alongside the need for a National Day for Plantation, as this will prevent further deforestation of our country. Advocacy campaigns in this regard will be presented to authorities, so that they can prevent mindless extraction of community-based forests.

Why are Indigenous Trees important for our Forest Ecosystems?

Bringing in exotic or “alien species” oftentimes creates unpredictable damage to not only the growth of our forest ecosystems and the environment, but also affects all living things. Take the example of the infamous Paper Mulberry in Islamabad which literally wreaks asthmatic havoc on us each

summer, when there are record levels of pollen released by this foreign species. In addition, this tree is rendering our existing species extinct due to so-called “allelopathic effects” – these effects inhibit the growth of local plants by secreting chemicals in the soil.

Which species for reforestation purposes?

In Karachi and Balochistan, what are commonly known as wilayati keeker (Mesquite) and beli were planted for the very reason that they grew fast, but this has restricted or even wiped out other indigenous trees and shrubs like Acacia senegal – local name Khor, Acacia nilotica – local name Kikar or Bhabar, Prosopis cineraria – local name kandi or jandi. These species must be replanted, and slow replacement of exotics must happen alongside.

The Northern forests in the earthquake affected areas





Some Indigenous Trees of Pakistan



Neem



Cheer



Amaltas



Peepal



Kikar



Sukh Chain



Fig



Kachnar



Tips for public usage of water

Individual responsibility needed in solving water crisis

- ➔ Use a pan for dish cleaning, instead of a running sink tap
- ➔ Avoid using a running shower; use a bucket instead
- ➔ Use recycled water for gardening, such as saved 'Wudu' water
- ➔ Monitor and repair, in a timely manner of leaking taps and pipes
- ➔ Clean cars with a bucket instead of using a pipe
- ➔ Employ smaller flush tanks for saving water
- ➔ Consider dietary changes towards less meat consumption, which takes twice as much water to cook than vegetable dishes.
- ➔ Plant trees and raise your concern at rapid deforestation

mostly consist of Cheer (Long Needle Pine), Fir, Deodar and Kail (Blue Pine) varieties which should form the basis of reforestation efforts in the affected areas.

In the case of Islamabad, there are many beautiful trees in the area that are naturally part of the landscape, e.g. Shirin. Similarly, Sumbul trees should be encouraged as they also have economic value if the seeds are harvested as they are used to fill pillows. CDA should encourage harvesting of seeds of this tree as well. Banyan tree or Bur as is commonly known was planted for centuries. Sher Shah Suri planted these trees at regular intervals on the GT Road in sets of three with water

ponds for horses. People also used to rest under these. Peepal is also a very good native tree for the purpose. Further recommendations are: Pine – local name Cheer, Sukh Chain, and Kachnar. Local Mulberry that produces black colored fruit is a very good choice, since the fruit has medicinal qualities of healing sore throats and infections.

Our country needs to rejuvenate itself every coming plantation season and involving our citizens will ensure that we are resilient from the present-day COVID-19 and climate crises, not only in the present but also in the coming days. ■



Plantation for a resilient economy

Pakistan's agrarian economy will only receive a boost from the plantation of supporting green cover to empower most of our poor population who depend on it for livelihood.

Land degradation and further deforestation can be avoided with effective laws and monitoring policies while investment in fruit trees will provide both food and a means of livelihood to the poor. With COVID-19 as an ongoing pandemic, the concerns of the maintenance of the natural environment is key, and the loss of forest cover is a key concern. The principal cause of deforestation in Pakistan is the unmitigated consumption of fuelwood and timber. Further, indigenous species are threatened by thoughtless plantation of exotics, which are rendering them extinct. Rapidly increasing domestic livestock population is also the

direct cause of degradation on rangelands and forests. Pakistan also faces degradation of agro-ecosystems caused by irrigation. The agricultural use of pesticides and fertilizers has rapidly increased in recent years killing many species as their use in Pakistan has increased manifold.

Land remains a crucial element in development economics, regardless of whether a strong dependence on agriculture exists or not. Our natural resources are our true sources of wealth and especially in the light of being an agrarian economy, care for the environment becomes a major factor when livelihoods of most of our poor is based on





forests and farms. An utter disregard for the devaluation of land by environmental degradation not only means a downward spiraling poverty cycle but has the potential to uproot our entire nation from the ground up. Forests also play a key role in soil erosion, sedimentation and flooding as well as literally being the filters for clean air, keeping us healthy and ensuring land fertility.

On the other hand, the construction of dams and barrages

herded in the delta area and fed by means of these trees.

The side effects of deforestation and lack of rainfalls due to climate change are not only going to affect agriculture, the backbone of our economy, but will put into serious question a simple human existence requiring potable water. With the rise of diseases like hepatitis, Dengue fever and AIDS across Pakistan means that the poor are especially vulnerable to the vicious cycle of ever-increasing poverty, rising health related



in the Indus basin to control flooding and store water for irrigation have greatly endangered the Wetlands habitat. Reduction in freshwater flow to the coast has greatly increased salinity in mangrove forests, which support local fishermen by maintaining an entire ecosystem that comprises of fishes as well as other biodiversity. These trees are breeding grounds for commercial fishes and prawns as they provide nutrition for these animals. Pakistan exported, for example, 25,000 tons of prawn in 1998. Hence, without these, the fishing industry of Pakistan would collapse. Mangroves also provide fuelwood for coastal villages like Ibrahim Haidri and Rohri which oftentimes is the only source of energy. The leaves are quite nutritious, and camels owned by villagers are often fed by these. Every spring, about 16,000 camels are

risks with environmental degradation occurring simultaneously.

How do we use afforestation to reclaim our people and lands from perishing through and through? This must first start at the legislative level where laws regarding effective monitoring and preservation of the community-based forests is fully realized.

This is because almost all the community owned forests (classified as Guzara forest) all across Pakistan are destroyed due to unmitigated cutting down of trees. For example, the greenery that one witnesses in the Northern areas is mostly state-owned reserve forests. Since there is no accountability for cutting down trees or proper replacement strategies, these areas are the worst affected. The example of the region of Alai,



which is mostly owned by the community which is very much below the poverty line and hence they are forced to cut down trees in order to survive.

Hence, laws regarding such forests must be changed and effective replacement strategies be implemented by the government so that deforestation can be stopped. Appropriate development must occur in these areas so that the poverty level is reduced and hence there is some motivation

species of trees like “Sukh Chayne” whose seeds have been found to yield biodiesel. Experts in agriculture, local ecology and botanists should be involved in the plantation of such species, so that funds are not wasted on either exotics or geographically misplaced trees. Further, communities involved in the plantation must be educated and supported for effective replacement strategies. The Forestry department, as it is doing in state owned forests, must tag the trees and



and interest in keeping forests intact by the locals. The level of forest cover is still quite healthy in the Northern areas and the situation can still be salvaged if proper strategies are put into place in community owned forests by the government, which now have up to 90% level of deforestation levels.

Poverty reduction will require a serious investment in the care of our natural resources especially forests. In this regard, massive plantation drives, with the involvement of communities is a sustainable answer. This should include protection of coastal regions, as the mangrove forests provide substantial support to the fishing community in that region.

This also creates an environment that is conducive to healthy living and provides means for various communities to benefit by plantation of fruit trees and other indigenous

maintain inventory of each tree, so that unlawful deforestation is kept in check as well as proper action taken towards those bent on weakening Pakistan for their selfish gains and profits.

While all of this may sound idealistic, it is nevertheless possible if the positive impact of an underlying healthy natural environment is understood in terms of human prosperity. The authorities should come to grips with what is keeping us intact and prevent further harm from happening, as further neglect only means further slipping into the jaws of underdevelopment and the real possibility of Pakistan turning into a desert. Proper forest management, alongside massive plantation drives means that we are taking steps to slow this slide towards destruction by helping the poor and enriching ourselves as a nation in the long term. ■



A Healing Herb

Herbs are becoming more popular, both for their culinary and medicinal uses, especially here in Pakistan where the trend for 'natural' has really taken off.

However, whilst species such as thyme, oregano and basil are almost household words, for some strange reason, yarrow is not –

and it really should be way up high on the 'must grow' list.

A member of the *Asteraceae* family of plants,

| *Achillea millefolium* |

yarrow, in its many forms, is a very attractive perennial plant with numerous culinary, medicinal and even garden uses. It is the ideal companion plant for those cultivating grapes as it brings up and concentrates essential nutrients, the ones most needed by grape vines, from deep in the soil, storing them in its beautiful, feathery leaves. This, in turn, as they die back in the autumn, act as a natural, highly enriched, vine fertilizer for which grapes are extremely thankful.

Botanically known as '*Achillea*', this wonderful plant is named after the ancient Greek hero Achilles who knew its properties well and used it to stem

the blood flow from his injured troops after the historical siege of Troy.

There are several indigenous species of yarrow growing wild in upland regions of Pakistan. While these particular varieties may not flourish in the summer heat of the plains – although they are worth trying in shady, moist spots – there are many heat tolerant ones which will thrive as long, that is, as they are cultivated in soil rich in natural material, in partial shade and are watered regularly with recycled water (as long as it is not loaded with detergents, being perfectly suitable for these plants).

'*Achillea millefolium*', one of our indigenous species, is about the most useful one to grow and, although slow

from seed, once it takes off – providing conditions are suitable – it quickly forms a dense mat of leaves topped by its rather sprawling stems of flat, white or pinkish white, corymbs of flowers. Each of these corymbs composed of dozens, sometimes hundreds, of tiny individual blooms which are absolutely adored by bees, butterflies, ladybugs and other beneficial insects.

The medicinal properties and uses of this wonderful herb include the application of fresh leaves to first slow down and then stop bleeding – which is why Achilles always had a supply with him for use on the battlefield when his troops were injured. Other proven uses, in the form of fresh leaves used externally or internally and also in the form of herbal teas, are as a digestive and indigestion cure, as a diuretic, to relax spasms, to alleviate rheumatism and arthritis, in treatment to normalize and



| *Achillea ageratum* |

control high blood pressure and as a cure for colds and influenza.

Its culinary uses are fairly varied too: fresh, preferably tender young leaves are a tasty addition to salads, can be used in quiche, in pasta sauces, in soups and make a very interesting addition to 'raita' and to pakoras too. This

particular indigenous species is very popular with Pathans and is called 'Dumbari' in Pashtu.

In the garden, as well as being the best companion plant for grape vines, as detailed above, the addition of a few leaves – preferably the tougher, older leaves - to the compost heap or bin, really speeds up the composting process. This reminds me, as it is such an excellent digestive, it is best eaten in reasonably smaller amounts!

There are something like 85 known species of this plant to be found all around the world and, aside from the uses mentioned above, they are – especially the large, tall growing, colourful varieties, commercially cultivated for cut flower production. they last a long time in water as long as it is changed every 2 – 3 days – and are also a popular species for the dried flower market.

Sun lovers in cool climate areas and shade lovers in hot places, all varieties are simple to grow from seed as long, that is, as the seed is relatively fresh. Seed harvested and then sown in the



| Summer pastels |

same year has the highest germination rate although seed can, with moderate success, be stored, in dark, air-tight containers, kept in a cool place, for as long as 2 years before almost, but not quite, losing its viability. Some people claim that it will store for 10 years and longer but that is only in strictly controlled and monitored places such as specialized 'seed banks'.

Seeds are extremely tiny and should be sown with care. Mixing them with sand prior to sowing will help in dispersing them at a reasonable distance from each other instead of in one big clump. They should be surface sown in trays or pots of good quality, organic

compost with just a slight sprinkling of the same compost scattered over them and then watered to settle them in. Seed is best sown during mid October in Karachi and Multan, in very early spring in Lahore, Rawalpindi, Islamabad and Quetta and slightly later in Peshawar. In upland areas seed can be either spring or autumn sown. Plants can also be increased by root division and root cuttings taken from established clumps.

Seed germination time varies from species to species, some taking as little as a couple of weeks to pop up and others as long as two or three months so do not give up hope but be patient with whatever species you decide to grow.

Amongst the easiest and most useful varieties are:

'*Achillea millefolium*' – the 'original'

yarrow as discussed above and which, depending on soil and climatic conditions, can reach a height of 1 – 2 feet tall.

'*Achillea millefolium* 'Colorado' – as the above but with flower shades ranging through creams, yellows and apricots to crimsons and bronze. '*Achillea millefolium* – summer pastels – also as above but with flower colours including pale pinks, lavender and even very interesting gray tones.

'*Achillea millefolium* – Cassis – is a cheerful cherry red flowering variety up to 2 feet tall.

'*Achillea ageratum*' – can reach a height of 3 feet and more and has golden yellow corymbs.

'*Achillea tomentosa* var. *aurea* – grows just 6 – 9 inches tall, has slightly velvety leaves and bright gold flowers. This is an ideal pot plant for shady verandahs or for planting on partially shaded rockeries. ■



Local people are best friends

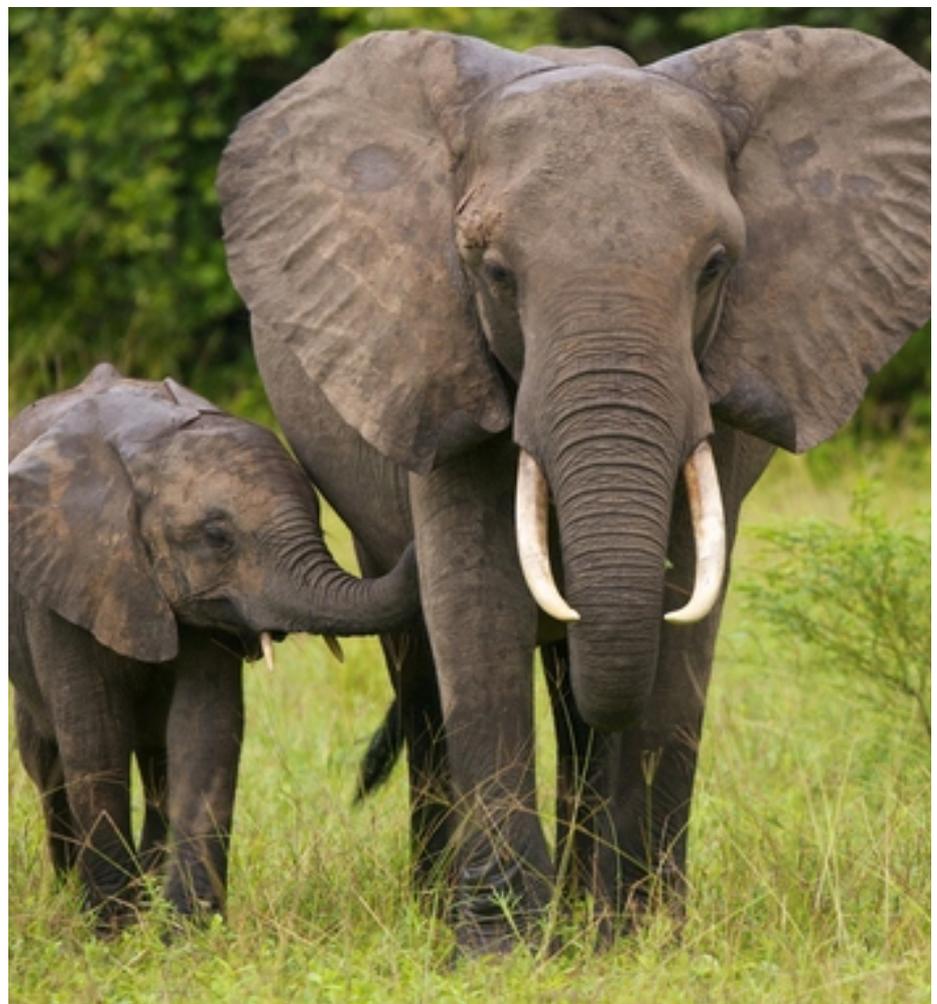
The convention of Biological diversity (CBD) recognizes the need for countries to use their indigenous biological resources for socio-economic development.

In fact, key sectors of the economy of Pakistan, such as agriculture, fisheries and forestry are dependent on the use of biological resources. While recognizing the need to use resources, the CBD requires parties to ensure that using resources does not deplete the country's biodiversity.

The sustainable use of the components of biodiversity is specifically established in Article 10 of the Convention while inter alia requires parties to integrate consideration, use of the conservation and sustainable use of biological resources into national decision-making and to adopt measures that would adopt or minimize adverse impacts on biological diversity.

Being one of the objectives of the Convention, the sustainable use of biodiversity figures prominently in Articles other than Article 10.

In practice, in Pakistan, as in many other developing countries, conservation of biodiversity is traditionally considered to be the exclusive role of organizations such as the Wildlife Department, Forestry Department, and zoological / botanical gardens. Institutions that use biological resources e.g. the agricultural and fisheries sectors have paid little attention either to depletion of biodiversity or of the resource base. Clearly, there is a need for integrating



sustainable use considerations into national decision making in different sectors of the economy. The adoption of a Biodiversity Action Plan (BAP) should remedy this problem.

The CBD request parties to respect preserve and maintain knowledge,

innovation and practices of indigenous and local communities for the conservation and sustainable use of the biological diversity. In Pakistan, traditional national resource management systems have declined with the advent of the state controlled



protected areas and creation of centralized management agencies. Although many rural communities have developed specialized, area-specific systems of use and conservation, few of these systems or the customary rights and traditions which comprised them are recognized by current laws. As a result, many traditional activities have become illegal and are now sources of conflict between authorities and local communities. A new approach is clearly needed in which local people are no longer considered to be the problem but rather, part of the solution. In recent years, several innovative projects the UNDP / GEF-funded project, maintaining biodiversity with Rural Community Development have tested this approach in Pakistan. the results were encouraging and demonstrated that local communities can be

“ In practice, in Pakistan, as in many other developing countries, conservation of biodiversity is traditionally considered to be the exclusive role of organizations such as the Wildlife Department, Forestry Department, and zoological / botanical gardens ”

effective custodians and managers of biological resources, once an appropriate, enabling framework, for example policy reform, technical assistance, has been created.

Among the factors that can help promote sustainable use at the species and ecosystem levels are the following:

Social / policy factors:

- defined 'ownership' to land and resources; and
- Effective information exchange between users, decision

makers and the public.

Economic factors:

- Adequate income / incentives for communities to sustain the conservation of the resources; and
- Reinvestment of income earned into conservation.

Biological factors:

- ✦ Establishing the biological basis for use i.e. status, trend and biological requirements; and
- ✦ Setting objectives for the size of the target population.





Management inputs:

✦ Training; and monitoring.

As a rule sustainability has been accorded insufficient emphasis within those sectors that use biological resources. There is a need to strengthen the regulation and management of Pakistan's resource utilization programs, taking into consideration the criteria and factors outlined below.

1. With the adoption of the BAP, formulate policies in the different resource sectors which would promote the sustainable use of biological resources.

2. Review and revise existing laws where necessary to ensure that an effective legal framework is in place, which, promotes sustainable use; establishes clear rules on jurisdiction and responsibilities among agencies and permitted users; and clarifies rights of ownership to biological resources.

3. By introducing legal measures requiring the development of management plans for harvested species.

4. By enhancing the capacity of government agencies, research institutions, NGOs and local communities to determine and monitor harvest levels of biological resources.

5. Through developing criteria for sustainable use and prioritize the types of uses (subsistence versus commercial) that will be allowed in different areas.

6. By ensuring that biological resources are harvested according to scientifically-sound management plans. Take measures to reduce the incidental take of non-target species e.g. marine turtles in the commercial shrimp fishery.

7. By reviewing and revising the laws relating to ownership and access to natural resources e.g. tenure rights to fuel wood, fodder, wildlife and trees, so



as to recognize community property rights and traditional natural resource management systems (see also Action 2.2).

8. By evaluating traditional systems of harvesting biological resources (terrestrial and marine) and disseminate information on practices which promote the sustainable harvesting of these resources.

9. By using traditional land tenure arrangements as a basis for planning and implementing conservation projects that promote sustainable use of the biological resources.

10. By Promoting community-based conservation projects in which sustainable use natural resources can be demonstrated, for example the UNDP/GEF-funded project maintaining biodiversity in Pakistan with Rural

Community Development.

11. By developing, documenting and adopting standardized methodologies for economic valuation of biodiversity, tailored to the requirements of individual decision-making agencies.

12. By initiating measures to 'green' the system of national accounts.

13. By establishing inter-sectoral steering committees to oversee the implementation of the BAP at both the federal and provincial levels (see Implementation Measures).

Incentive measures:

Identifying the issues:

Article 11 of the CBD requires that incentives be adopted to promote conservation and sustainable use of biodiversity; the Convention stresses that these incentives should be economically and socially sound.



Incentives are measures that promote desired practices and behavior and may be direct (e.g. the provision of grants or subsidies) or indirect (e.g. tax exemptions). Disincentives, such as fines or pollution charges, are used to discourage practices which deplete biodiversity or lead to sustainable use. 'Perverse' incentives are measure that have been taken to promote other social objectives, but which have a negative impact on biodiversity. For example, many countries provide grants or tax breaks for land clearance and the replacement of local crop varieties activities that can severely reduce biodiversity.

The integrated use of the incentives and disincentives is a powerful mean of promoting conservation and sustainable utilization and is being accorded increasing attention by many governments. Pakistan, however, has made relatively little use of this approach. Because the benefits of biodiversity are not widely understood and conservation on sustainable basis has not been realized. Similarly, appropriate disincentives are scarce and weakly enforced. 'Perverse' incentives are also widespread, particularly in the agricultural sector. Irrigation subsidies encourage the wastage of water and contribute to the degradation of

freshwater and coastal ecosystems.

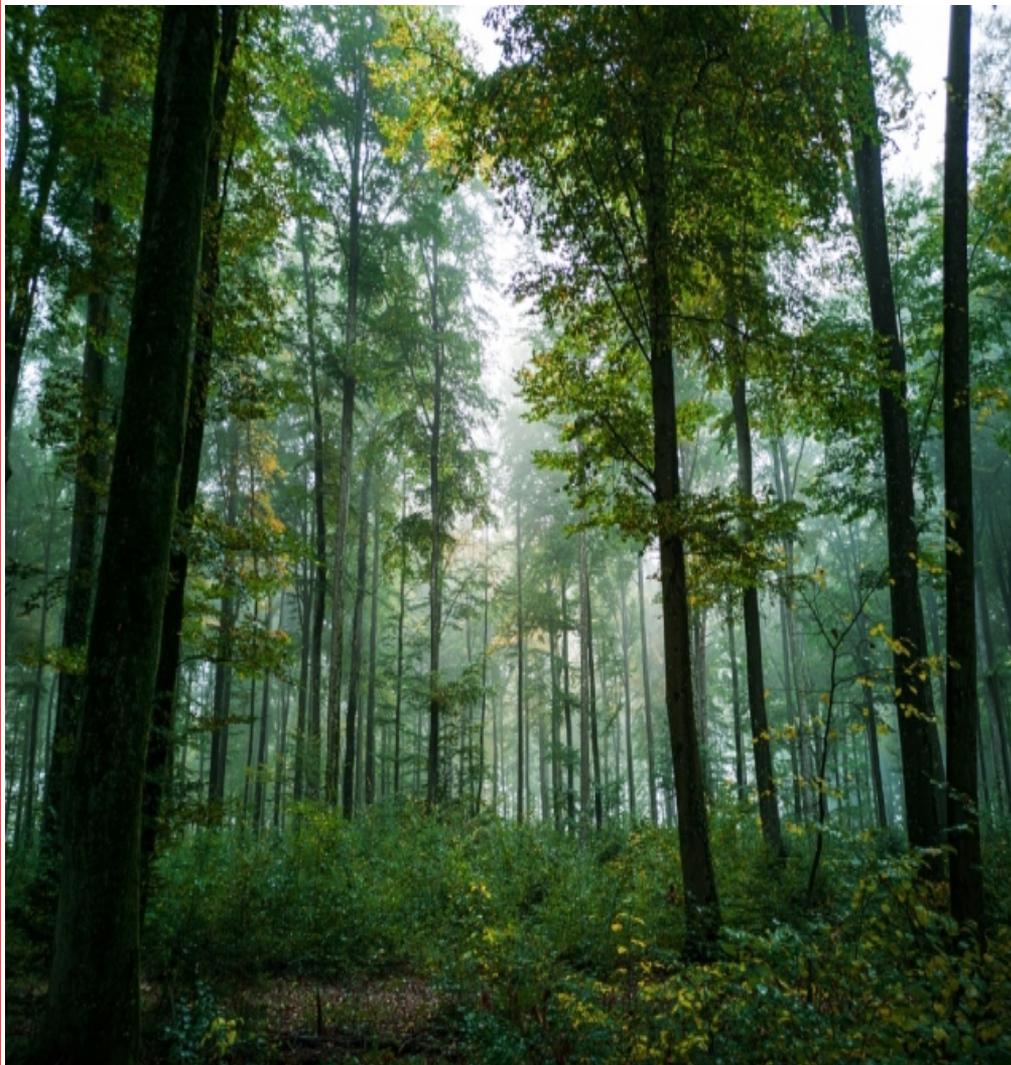
An additional cause of the biodiversity depletion in Pakistan is the disproportionate distribution of consist and benefits associated with the conservation and use of biological resources. Those who benefit from the exploitation of biodiversity do not bear the proportional costs of depletion; rather, they pass on many costs to other segments of society which do not have equal share in the benefits. For example, communities often bear the ecological costs of unsustainable resource use practices carried out by external organizations but receive few benefits. At the national level, there is no pricing and valuation system for biodiversity. As a result, the government does not determine and therefore, does not change for the real cause of biodiversity use.

The appropriation of natural resources by the state and subsequent development of centralized structures have also deferred communities form taking an interest in the long-term sustainability of their natural resources. This has had detrimental effects on biodiversity conservation in Pakistan.

The policy needs revival on many fronts. The important step that could be taken in this regard is to introduce a system of direct incentives that could include:

1. The provision of subsidies to encourage farmers to retain local cultivators and crop varieties, and to adopt practices such as integrated pest management, agro-forestry and multi species cropping.

2. Owing to the fast degeneration of biodiversity in our country these measures are enforced rigorously and urgently. Environmental temperature is potent threats that can, surreptitiously destroy the ground underneath.■





5 Ways Smoking Could Kill People

Smoking is a lethal addiction. It is responsible for around 6 million premature deaths from around the world. According to American Cancer Society, nearly half of the deaths from 12 different types of cancers are linked to tobacco smoking.

Thanks to education and public awareness, smoking is declining in developed states of EU, North America and Australia but it is on the rise in poor and developing Asia, Africa and the Middle East regions, mainly due to ignorance and illiteracy.

We are about to reveal how dangerous it could be in this

month's Safety First section. Here are some ways smoking could pose serious threat to your life and other people around you.

1. Chronic Illness

It makes you sick; this is why all the tobacco products are sold with a mandatory Health Warning Label i.e. 'Smoking is



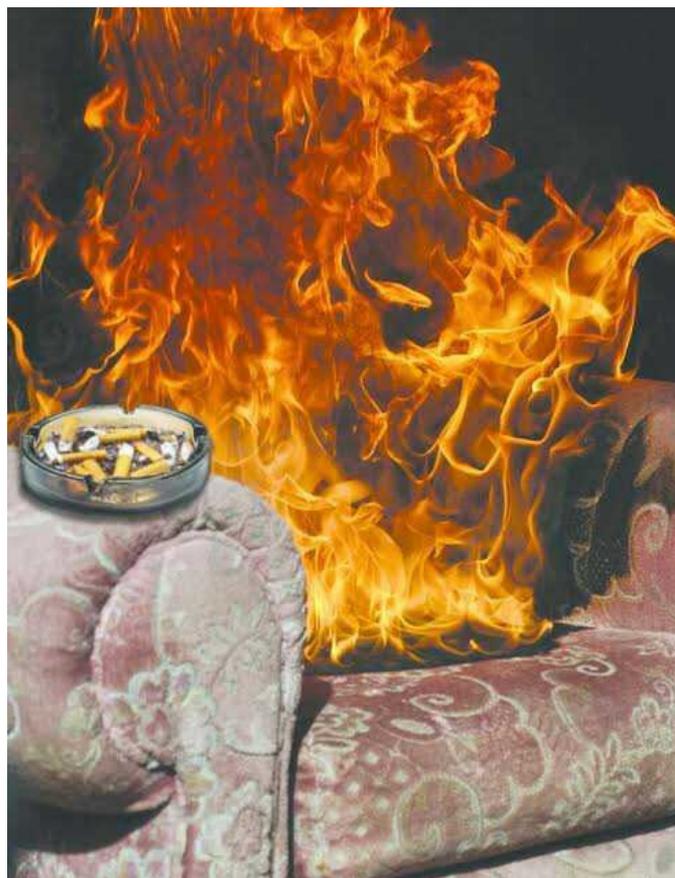
Injurious to Health'. The list of different kinds of illnesses it is known to cause is endless. Several researches by well-known medical universities have confirmed that smoking cigarettes can cause different types of cancer, diabetes, painful gum disease and other oral problems, adversely affects eyesight (vision loss in severe cases), exacerbate asthma and allergies, hurt digestive system, permanent damage to liver and many other health problems. Smokers get aged fast, suffer sleep deprivation, and have lower stamina than healthy non-smoker individuals. All this eventually leads to premature death.

2. Fires

No place is safe for smoking, but your bedroom is probably the worst place for this dangerous activity. Lit cigarettes are infamously known to cause deadly fires in buildings, vehicles and in the wild. Every year, almost 1,000 people are killed in house fires caused by smoking only in the United States. One could fall asleep with a lit cigarette in hand which could ignite an inferno. This is one of the most horrible ways to die while smoking. It may also put several other lives at risk. Do not be fooled by "safer" E-Cigarettes. They are even proving to be more dangerous than conventional ones. Several cases of exploding e-vapes around the world have been reported. Battery powered vape pens are not only injurious to health, but they may also overheat and explode causing serious injuries to the smoker. In May 2018, an exploding e-cigarette killed a young man in Florida, USA. Mr. Tallmadge D'Elia, 38 was the first ever person killed by vape explosion. Nearly 200 battery operated cigarette explosions have been reported from 2009 to 2016 only in the United States. At least 38 people have suffered serious injuries requiring hospitalization. There are so many videos of exploding vapes on YouTube showing how unsafe the e-cigarettes are.

3. Loneliness

A smoker may find it difficult to socialize with non-smoker friends. Cigarettes and all other smoking products are notoriously known to ruin indoor air quality. People hate unpleasant tobacco odor. If you cannot resist smoking while in a meeting with non-smoker people, they may avoid





inviting you to social events. It also becomes difficult to share a room or travel in the same car with non-smoker fellows. Losing your good old friends leads to loneliness, not only this but tobacco consumption also is believed to be directly linked with depression. Untreated chronic depression could eventually lead to suicide. It is pertinent to mention that more than 41,000 deaths are believed to be caused by secondhand smoke exposure only in the USA. So, having a smoker friend who would not stop smoking near you may also shorten your life!

4. Legal Troubles

It is illegal to smoke in public places, but chain smokers cannot resist the urge to smoke and end up breaking law. Smoking in public spaces in Pakistan is a criminal offense punishable by a fine up to 100,000 Rupees. Most of the educational institutions have put a strict ban on smoking within the school premises. Nevertheless, some of the ill-mannered students would try to catch a smoking break in school lavatories, only to get caught and face heavy fines. Some of the universities are now threatening to expel repeated offender students caught smoking inside the campus premises. Laws may be lax in Pakistan but they are super stringent in other countries. In Singapore, smoking in public spaces could cost you a hefty fine of SG\$1000, failure to pay the fine could land you in jail followed by deportation to your home country. Smoking in air-conditioned private offices can be fined up to RM10,000 or 2 years of imprisonment in Malaysia. Having a criminal record can badly affect your professional career and reduce your chances of getting a visa to a foreign country if you ever get caught breaking a law abroad.

5. Financial Burden

A 20 cigarettes pack of a local brand costs around 100 Rupees, imported ones could be thrice as expensive. A regular smoker on average would consume 10 or more cigarettes a day. This translates into minimum 50 Rupees per day, 1500 Rupees per month and more than 18,000 Rupees a year! This is just the direct cost of smoking i.e. the money a smoker would spend to buy cigarettes. They also are more prone to get ill, unable to work for weeks and end up spending a lot of money to pay for their medical bills. The cost of illness and



“Moist garden soil is a perfect place for mosquitos to thrive. An infected mosquito bite can transmit Dengue, Malaria and Zika Virus into humans. Cover your body; wear long sleeve shirt, a full length trouser and shoes. Apply a good quality skin-friendly insect repellent lotion on your neck, face and other exposed body parts”



unpaid work leaves could be even more expensive. Smoking makes a smoker poorer leaving them with very little or no savings. Now imagine quitting cigarettes, this would save you a lot of money. You can buy a nice family treat or gift something to your loved one in 1500 Rupees, buy yourself some nice dress or a pair of shoes in 18,000 Rupees by not smoking for a year! All this would bring happiness to your life. Conversely, smoking is only going to sadden your life keeping you poorer, sick and lonely.

Just quit smoking, it is your best bet!

We know it is not going to be easy. Begin with the help of a loved one who desperately wants you to stop smoking. Take self-help from internet if it does not work consult a medical professional. There are thousands of people who have successfully quit smoking. You could be one of them. If you do not smoke but know someone you care about is smoking, motivate him/her to quit this bad habit. ■



A Green Spring Clean

7 Environmentally Friendly Household Cleaners

Love Spring cleaning but hate harsh environmentally unfriendly cleaning chemicals?

You're not alone. More and more people are switching from all those cleaning products that sit in their little tubs in cabinets beneath sinks off-gassing unhealthy vapors into their homes.

Not only are these chemicals responsible for skin irritation, chronic respiratory problems, allergic reactions, and headaches – they're bad for the environment.

You probably already know this. But what can you do? Well, you can always buy more environmentally friendly options. There's been a huge increase in companies providing these products recently and you may have a few of these in your home. But they're not cheap. However, if you've got a DIY (do it yourself) kind of mentality you can make your own cleaning products for way less that work just as well and are just as environmentally friendly. And as a bonus, they're non-toxic to humans so you won't be exposing yourself to all those chemicals. These ingredients are easy to find, easy to use and cheap. All you need are the recipes to make them. And guess what? We've got 7 of these





recipes for you.

Easy All-Around Cleaning Spray

Apply to any target surface to get it clean. Here's the ingredients: ½ cup of white vinegar, 2 tablespoons baking soda, 3 – 5 drops tea tree oil, warm water, and a spray bottle.

Directions: Fill your spray bottle with all the ingredients and shake vigorously until blended. Spray your target with it then wipe clean with a sponge or towel.

Super Simple Scouring Cleaner

This is about the easiest (and most effective) cleaner around. Simply put one cup of baking soda and one cup of Kosher salt into a mixing bowl. Slowly fill with warm water while stirring until it becomes a thick paste. Dip a damp sponge or scouring pad into the mix then get to scrubbing. It will work on any surface from the bathroom to the



kitchen—even inside the refrigerator.

Scouring Cleaner V2.0

This cleaner is a little more heavy-duty. It's good for any surface, especially useful in the bathroom. But it IS NOT ok to use inside the refrigerator. Here's what you'll need: 1 teaspoon borax (Suhaga Baryan), ½ teaspoon of washing soda (not baking soda), 1 quart of warm water, 1 teaspoon of dishwashing soap, 5 -10 drops of essential oil (lavender, lemon, orange).

Directions: Put ingredients into a large mixing bowl and just like before, slowly fill with warm water while mixing until it becomes a paste. Dip a damp sponge or scouring pad into the mix and go to work.

Glass Cleaner

Good for the windows, any glass, steel, and chrome. Here's what you need: ½ cup white vinegar, ¼ cup rubbing alcohol (70%), 2 - 3 drops

essential oil, 2 cups warm water, spray bottle.

Directions: Using a small funnel, pour the ingredients into your spray bottle. Give it a good shake until mixed.



Spray on glass, wipe clean with a towel.

DIY Dishwashing Detergent

Detergent (especially dishwashing detergent) is one of the main culprits of creating algae blooms in our lakes and rivers. You can get your dishes just as clean without the environmental impact with this mix.

Here's what you'll need: 1 cup of washing soda, ¼ cup of citric acid, ¼ cup of coarse salt or Kosher salt, white vinegar.

Directions: Mix all your ingredients then put it in an airtight container for storage. To wash a normal load, put one



tablespoon of the mix into the detergent compartment then fill the rinse compartment with white vinegar.

Grease-Cutting Cleaner

Got a stove top or BBQ grill coated in greasy grime? Get them clean with this simple mix.

What you need: ½ cup of sudsy ammonia, 1 gallon hot water

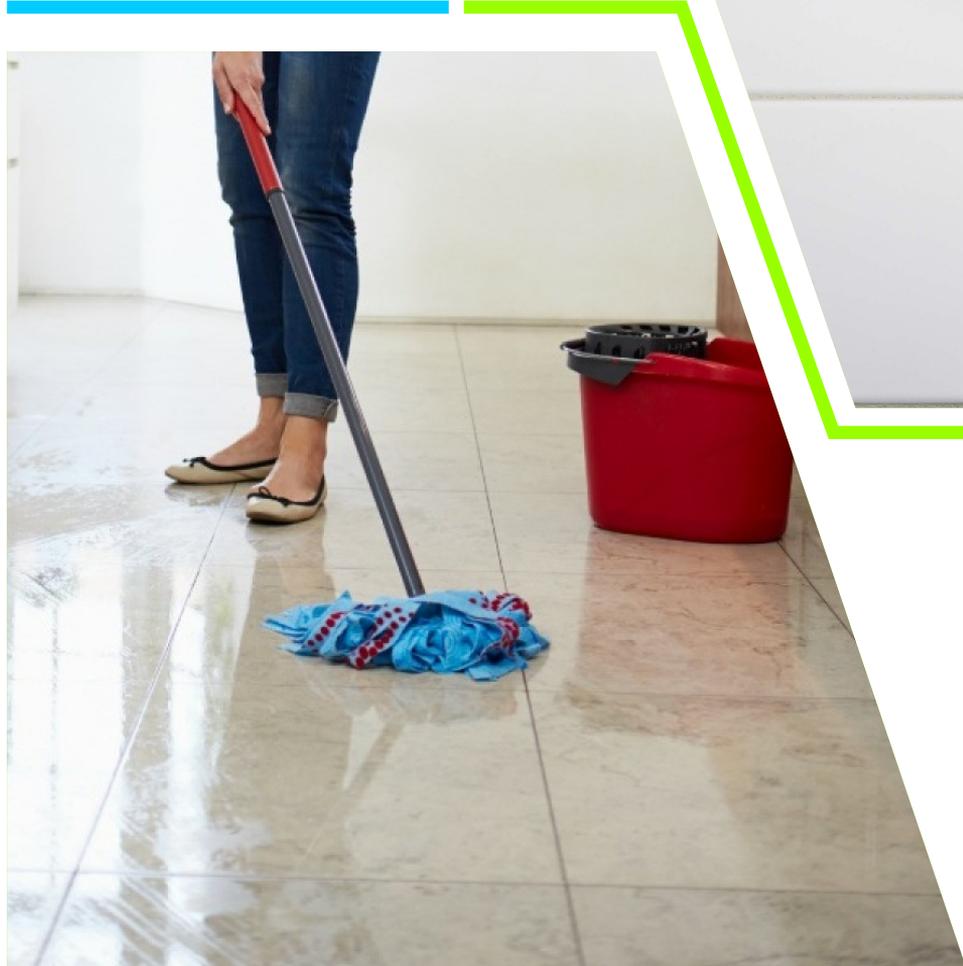
Directions: Put the sudsy ammonia in a large bucket and fill with hot water. Dip a damp sponge or scouring pad into the solution and attack your greasy target.

Tidy Toilet Bowl Cleaner

Get your throne sparkly white with this eco-friendly solution.

You'll need: ½ cup baking soda, ¼ cup liquid castile soap, 5 – 10 drops essential oil (optional), ¼ cup hydrogen peroxide, 1 cup hot water, ¼ cup white vinegar, squeeze bottle.

Directions: Mix everything but the vinegar in a large bowl. At the end, add the vinegar – it will foam a bit. Continue stirring until foaming stops. With a funnel, fill the squeeze bottle. Squirt a



generous amount under the rim of the toilet bowl. Let sit for 5 – 10 minutes then scrub clean with a toilet brush like normal. Flush when done and voila, clean toilet!

There you have it. Seven environmentally conscious cleaning solutions you can use all around your home. ■

(Courtesy: Uptown Square Apartment Homes)



Massive losses should be a warning to big oil that its bonanza is over

Covid has battered the industry, and the race for renewables is speeding up. We are at a tipping point.

The final months of 2020 were a tough end to a tough year, according to BP's chief executive. But Bernard Looney's verdict on the worst financial year in the industry's history is a devastating understatement. It was a period marked by thousands of job cuts,

battered dividend policies and record multibillion-dollar losses.

BP revealed a full-year loss of \$18bn,



BP made its first full-year loss last year since the Deepwater Horizon disaster



its first since the Deepwater Horizon disaster more than a decade ago, while US oil giant ExxonMobil reported an annual loss of \$22.4bn – its first ever. Shell capped a year in which it slashed its dividend for the first time since the second world war with a debit of almost \$20bn.

The crushing decline of the oil

industry during the Covid-19 pandemic may be unprecedented, but it is also a foreseeable outcome for fossil fuel producers in the years ahead. The race to create clean-burning biofuels and hydrogen to propel aircraft and seaborne tankers is gaining pace. At the same time, electric vehicles are accelerating into the mainstream.

A green transport future is arriving faster than even the most optimistic environmentalists had hoped, and fossil fuel executives had feared.

Managers have a choice: they can view the 2020 collapse as an unprecedented event in the history of the industry, or a grim foreshadowing of its value in a world that no longer needs fossil fuels. Both are valid viewpoints, of course. But unless oil companies prepare today for a greener future, they face an indefinite number of dire financial years.

There are some signs that the warning of 2020 has been heeded by the world's biggest producers: companies including BP, Shell and Norway's oil giant Equinor are taking an aggressive position within the offshore wind market, Shell is accelerating its move into electric vehicle charging, and all



Photo Credit: Rex Features



Photograph: Ian West/PA

| BP reports \$5.7bn loss as Covid-19 pandemic hits oil demand |

seem enamoured by the potential for a hydrogen economy.

But the real trick to guarding against the risky future for fossil fuel production is to stop producing fossil fuels. None of the major oil companies seem ready to make that leap. They may want to hurry.

For further proof, if it were needed, that the low-carbon race is advancing apace, turn your attention to the US comedy star Will Ferrell. The actor has – temporarily – traded in his big-screen gags for a General Motors television advert in which he vows to help the US beat Norway’s dominance in electric vehicles. The ad, which is due to run in the US during the Super Bowl, is perhaps the clearest sign that forgoing

fossil fuels is no longer the niche pursuit of the eco-conscious. If the star of *Anchorman* is using the phrase “Norway is out EV-ing us” in one of the most-watched US television slots of the year, we can safely assume that electric vehicles have arrived in the hearts and minds of middle America.

There will be Big Oil naysayers who insist that the road towards green transport will be more of a long and winding path than a motorway. That is to be expected: it comes from the same playbook used by the fossil-fuel industry when renewable energy began to emerge. Energy from the sun and the wind was once dismissed as being too expensive, too difficult to store, and technically incapable of playing a major

role in the energy system. In a matter of years, renewable energy developers have quietly proved these theories wrong.

Oil company bosses who believe there is one last hurrah for fossil fuels before the green renaissance takes hold may be proved wrong yet again, and this time there will be no excuses. Many warning shots have been fired in the green revolution, but none so loudly as in 2020. It’s time to bite the bullet.

The economy is being boosted by the vaccine, but held back by Brexit

Since the UK mass vaccination programme began, the value of sterling has crept steadily higher against the euro. From a low of €1.09 on 11



“But the real trick to guarding against the risky future for fossil fuel production is to stop producing fossil fuels. None of the major oil companies seem ready to make that leap. They may want to hurry”

December, the pound has risen to edge above €1.14. If the relative value of currencies is any guide to the future, it seems clear investors are betting on the UK having a brighter 2021 than the eurozone.

The European Central Bank is likely to confirm this outlook when it meets next month, by downgrading the outlook for growth this year for the 19-member currency bloc from around 4% to nearer 3%. It will blame the delays in vaccination procurement for holding back what was at one stage predicted to be a robust recovery.

Meanwhile, the Bank of England says a strong bounce back beckons in the second half of the year, resulting in 5% growth overall in 2021.

But while a faster vaccination programme is significant, it is not the only issue affecting growth. When the figures are tallied, the UK will almost certainly have suffered a 10% contraction in 2020, much worse than the eurozone average of 6.8%. This means Britain starts 2021 from a weaker position than its neighbours.

Government spending, and not just on health, also matters. At the moment, the Conservative party is heading towards setting a budget in March that will be dominated by talk of bringing down the public spending deficit as much as ways to boost the economy.

The EU has no such concerns when much of its €750bn (£670bn) stimulus package has yet to be spent and its manufacturing base is motoring along, while the UK's suffers an overload of Brexit trade bureaucracy.

That means there are plenty of trip hazards ahead for both British and EU forecasters. Their predictions may be modified many times before the year is out.

We need seek a seabed dividend

As oil revenues plunge, the drilling giants are getting set for a switch to renewables. An auction of seabed plots for windfarms off the coasts of England and Wales has attracted record bids as new companies pile into the sector, with predictions that it will raise more than £4bn in licensing fees over the next decade.

With Boris Johnson calling for every home in the UK to be powered by renewables by 2030, the seabed looks set to remain a major source of revenue for the British state. So the time has come for a debate on what the nation should do with this green windfall.

As things stand, a quarter of the cash will go to the Queen. The other three-quarters will flow to the Treasury.

A first step would be to reduce the monarch's share of revenues from the Crown Estate, which manages all her

property, including her rights to the seabed. At present she is entitled to 25% of Crown Estate income. The sum was increased from 15% in 2017 in order to help pay for repairs to Buckingham Palace. That decision should now be reversed – even a smaller share will be more than enough to pay for the rewiring.

The bigger question is how the Treasury should manage its portion. Some, including the Green party, want the money invested for future generations.

Norway's sovereign wealth fund is a source of envy around the world, perhaps nowhere more so than in Britain. One of the largest state-owned nest eggs in the world, the oil fund – or Oljefondets – was created in 1990 from North Sea oil revenues and is now worth more than £700bn. The investment income is helping to pay for the pandemic.

Margaret Thatcher's government spent the takings from Britain's 1980s oil boom by recycling them into cuts in taxes and welfare benefits. Had the money been put into a fund, the IPPR calculated a couple of years ago, it would be worth some £500bn today. The UK must make the most of this new opportunity. ■

(Courtesy: Guardian UK)



NEWS MAKERS

Pakistan lifting all coronavirus restrictions



Pakistan on February 24, announced it is all but eliminating coronavirus restrictions, allowing all commercial activities across the country to operate normally, and reopening public places, despite the country still reporting over 1,000 virus cases daily. Limits on the opening hours for shopping centers, markets, and amusement parks have been lifted with immediate effect, whereas indoor dining and wedding ceremonies will be permitted starting March 15, according to a statement from the National Command and Operation Center, which monitors the country's anti-virus strategy. Cinemas and shrines will also reopen with "stringent COVID-19 safety precautions" starting March 15. The condition of 50% work from home has also been lifted. "Wearing of masks, social distancing, and smart lockdowns will continue," the statement said. The decisions, the statement said, can be reviewed whenever deemed necessary. Long-pending local bodies elections might be planned by the

Election Commission for the end of May or early June, it added. Spectators' attendance at Pakistan Super League cricket matches has been more than doubled from 205 to 505 for pool matches, whereas full attendance will be allowed for playoffs with stringent "COVID-19 safety precautions" in the second week of March. The South Asian nation of over 200 million people has witnessed a significant drop in virus cases and deaths in recent weeks. However, it is still reporting over 1,000 daily cases, in addition to dozens of deaths. With 1,196 fresh cases recorded on Wednesday, the country's overall caseload has reached 574,580. Some 12,708 people have lost their lives due to the coronavirus since March 2020. Islamabad has already begun a much-awaited vaccination campaign. In the first phase, frontline health workers and those over 65 are being inoculated. Last month, the government announced it is securing 17 million doses of the Oxford-AstraZeneca vaccine through the UN-led COVAX initiative. The country's drug regulator has so far approved emergency use of China's Sinopharm and CanSino, Oxford-AstraZeneca, and Russia's Sputnik vaccine.

(Courtesy: Anadolu News)

Friends of Calgary man who died from COVID-19 in Pakistan warn of travel risks

Naveed Asghar was known for his smile, his humble nature and his willingness to offer a helping hand to anyone who

needed it. The 62-year-old Calgary Transit driver was a familiar face to many and was well known in Calgary's Pakistani community. He passed away in hospital in Pakistan on Feb. 7 after contracting COVID-19 while on a trip home to visit his mother. "He was very close to me," said friend Syed Haider. "He was just like an elder brother to me." Haider knew Asghar for around 19 years. He says Asghar called Calgary home for more than 20 years. Last month, Asghar visited the Calgary bank where Syed Haider worked for a chat and to tell him he was making a trip to Pakistan to visit his mother, who had been sick. He left a few days later. Haider says it had been several years since Asghar had been back to visit and there was a gathering of friends and family to welcome him when he arrived. "In our culture, people come to see you when you are coming to visit after a few years," said Haider. "He got sick, COVID positive." "He was an amazing guy, so polite, so humble, down to earth. Whenever I needed him, he was there," said Haider. In 2007, Haider was seriously injured in a car crash. He says it was Asghar who was by his side in hospital in the weeks that followed as he recovered from being in a coma. Just before Asghar left for Pakistan, he installed a flat screen TV for Haider in his basement, always ready to help. "Whenever we need him, he's always there. I will never forget him. I'm so upset," said Haider. "I will miss him every day." Naveed Asghar died while visiting Pakistan, leaving behind a wife and four children in Calgary. The community



has raised nearly \$35,000 to help support his family following his death. Arshad Chaudhry recalls camping trips in the Rocky Mountains with Asghar before he started a family, and that same humble nature and smile that anyone who met or knew him remembers. "I was so sad when I heard he had passed away. He was on a ventilator, and after two weeks he did not survive," said Chaudhry. "He's a long-time Calgarian. I have a lot of his pictures. Before his marriage, we used to go for camping trips and barbecues. He was smiling all the time and we had a lot of fun," said Chaudhry. "He was always such a caring person," he said. "The last time I saw him, we met at a wedding and he was still smiling, still humble, and that's why people remember these kinds of people. That's why everyone is so sad and talking about him," he said. "We leave only our smiles behind." Haider says he hopes what happened to his friend might make others think twice before travelling overseas. "I have a request for the whole community in Calgary: please don't travel if it's not mandatory. It's very risky," he said. "Naveed was so healthy when he left and he died in just two or three weeks. So please don't travel if it's not required. Stay home." The community has been quick to rally around Asghar's family. He leaves behind a wife and children: two girls, aged 13 and 11, and two boys, aged nine and six. (Courtesy: CBC News)

Pakistan ranks low on list of countries with most tests



As Pakistan continues to see a fall in Covid-19 cases, a website has placed the country on the 29th position in the list of

30 countries that have conducted the most number of tests per million population (PMP). The National Command and Operation Centre (NCOC) has, meanwhile, recorded 1,050 patients who contracted the virus and 41 deaths over the last 24 hours. Also, Pakistan is going to hold the first international conference dedicated to Covid-19 vaccine in which principal investigating officers of various vaccines will share their research papers. In another development, five departments of Pakistan Medical Commission (PMC) were sealed after 13 employees were found to have contracted the virus over the last one week, with five cases being reported in a day. According to the website, www.worldometers.info, which maintains global data, Pakistan has carried out 39,136 tests per million population, with Indonesia being the only country having conducted fewer tests 38,135 tests PMP. In terms of the most tests per million population, Israel ranks on top with 1,273,050 tests, followed by the United Kingdom which has conducted 1,266,538 tests and the US is on the third position with 1,052,930 tests per million population. Compared to Pakistan, India has conducted around four times more tests 152,821 tests PMP, Turkey has carried out 381,953 tests; Iran, 124,687 and Iraq, 162,756 tests. Similarly, the United Arab Emirates, which is ranked 49th in terms of the most number of cases, has conducted 2,978,906 tests and Denmark, 2,784,399 tests PMP despite being on the 58th position. Over the last one year, Pakistan has conducted 8.7 million tests overall. The US has carried out the most number of tests i.e. over 349 million, India with over 212 million tests is ranked second while Russia comes on the third place with over 109 million tests. Meanwhile, the NCOC data revealed that 1,050 people got infected and 41 lost their lives in a single day. As many as 250 ventilators were in use across the country while 2,069 patients were hospitalised on February 23. On the other hand,

University of Health Sciences (UHS) Vice Chancellor Prof Dr Javed Akram told Dawn that the university would start clinical trial of the vaccine of the Chinese company, Anhui ZhifeiLongcom Biologic Pharmacy Co, next week. Earlier, the university had carried out clinical trial of another Chinese firm Cansino's vaccine in which around 18,000 volunteers took part. The vaccine was later registered by the Drug Regulatory Authority of Pakistan. "Around 7,000 volunteers will participate in Anhui ZhifeiLongcom Biologic Pharmacy Co's vaccine trial. Moreover, UHS will host the first international conference dedicated to Covid-19 vaccine on March 12 and 13 in which principal investigating officers will share their research/working papers," Dr Akram said. After detection of 13 Covid-19 cases in a week and five in a day, the district administration sealed five departments of PMC till further orders. The departments sealed are Computer IT, Verification Cell, Legal Section, Licensing Department and Admin Department. PMC Press Coordinator Sarmad Hasan said the departments had been sealed as per directions of the health department. "However other departments will remain open because the PMC cannot afford to completely shut down the building. Students and medical professionals frequently visit it and we constantly disinfect the building," he said.

(Courtesy: Dawn)

As COVID-19 variants spread, why are global coronavirus cases declining?

In an encouraging sign for the COVID-19 pandemic, the number of new coronavirus cases around the world and in Canada is continuing to fall this year. For the fifth consecutive week, the World Health Organization (WHO) reported a decline in new infections on February 17. With a 16 per cent reduction compared to the previous week, 2.7 million new cases were



documented last week, the WHO said. The number of new deaths also fell by 10 per cent. “There has been a significant and global drop in disease week-on-week for the last four or five weeks. We haven’t seen levels as low as this as last October,” Mike Ryan, executive director of WHO’s health emergencies programme, said at a news conference on Monday. Nationally, Canada has seen a steady drop in daily case counts, with a seven-day average of 2,886 new daily cases reported for the week of Feb. 11 to 17. “We have reasons to be hopeful and I hope everyone is taking some comfort in the fact that we can drive transmission down ... with our individual-level actions if we are enabled to do so,” Maria Van Kerkhove, WHO technical lead for COVID-19, said on.

Experts believe that a number of factors, including adherence to public health guidelines, strict lockdowns and reduced travel, are likely contributing to the downward trend in cases. Some studies suggest that the rollout of highly effective vaccines could also be playing a role. A new study published in the *Lancet* medical journal on Thursday found that among the 7,214 hospital staff in Israel who received their first dose in January, there was an 85 per cent reduction in symptomatic COVID-19 within 15 to 28 days with an overall reduction in infections, including asymptomatic cases detected by testing, of 75 per cent.

On February 18, Dr. Howard Njoo, Canada’s deputy chief public health officer, said there are “early indications” that coronavirus vaccines are having an impact on infection rates. More than a year into the pandemic, partial immunity among populations and the natural seasonality effect commonly seen during epidemics that show a wave-like pattern could also be slowing the spread, according to Dr. Prabhjot Singh, chief medical and scientific advisor of CV19 CheckUp and associate professor at Mount Sinai’s Icahn School of Medicine in New York. “Oftentimes, outbreaks do



follow a bell-shaped curve, meaning they infect a lot of people and then they run into problems because of immunity in less susceptible hosts, so cases go down, until more susceptible hosts are available,” said Dr. Amesh Adalja, senior scholar at Johns Hopkins Center for Health Security. Is it herd immunity?

In the United States, which has by far the world’s highest case count, weekly new cases have fallen from 1.7 million at the national peak in early January to fewer than 600,000 this week, according to the COVID Tracking Project. It also noted that new cases have declined in every state. Dr. Martin Makary, a professor at Johns Hopkins School of Medicine, argues that the country will reach herd immunity by April. “As more and more people become infected, there are fewer people susceptible to infection,” he told *Global News*. “And in most of the world, herd immunity has started to kick in.” According to the WHO, herd immunity is when a population can be protected from a certain infectious disease, like COVID-19, either through vaccines or immunity developed through previous infection.

“Herd immunity against COVID-19 should be achieved by protecting people through vaccination, not by exposing them to the pathogen that causes the disease,” the WHO says. India has the second-highest number of COVID-19 infections. The Indian government has partly attributed the dramatic drop in cases to mask-wearing, which is mandatory in public in India and

violations draw hefty fines in some cities. Adalja said that if “herd immunity” is reached in a sub-population that is driving the infections, that can have “cascading benefits” on the overall cases.

The global decline comes against the backdrop of a spread of new, more contagious variants that are rapidly overtaking the original SARS-CoV-2 virus to become the dominant strain in some countries. In the United Kingdom, where a lockdown was imposed on Jan. 4 to combat the fast-spreading new B.1.1.7 variant, infections have dropped by more than two-thirds since last month. An interim report tracking monthly figures was released by researchers at Imperial College in London on Thursday. Adalja said the new variants still spread in the same manner and can be blocked using the same public health measures that have been in place.

National modelling released on February 19 emphasized the imminent threat of the variants, with Canadian health officials warning that the pandemic could “resurge rapidly” if public health measures are further lifted. Recent modelling out of Quebec and Ontario also suggests that the B.1.1.7 variant, first detected in the U.K., could dominate in a matter of weeks. Jean-Paul Soucy, an infectious disease epidemiologist and PhD student at the University of Toronto, told *Global News* that once the new variants replace the old strain, Canada could see a surge in cases that could spark a third wave in the country. But pointing to the U.K.’s example, he said the “good news” is that we can suppress the growth of the variants with “traditional measures” – lockdowns, masking, handwashing and physical distancing. Singh said the spread of new variants raises concerns that a surge could be coming, but the decline in cases offers an opportunity to prepare for the months ahead. “There are real drops – and it’s a chance for us to double down on what works and get ready for the potential of another surge.” (Courtesy: *Global News*) ■



The Heartening Beetroot

Beetroot, or *Chukandar*, is a highly nutritious and healing food. Here are some of its life sustaining qualities.

So, if you have found yourself ‘over-indulging’, adding some raw beetroot or beetroot juice to your diet can help you recover. Then again, why save it just for the ‘morning after’?!

The beta cyanin in beetroot can help detox your liver, having a knock-on effect for your bloodstream, by helping the body to eliminate toxins and potentially preventing the build-up of fatty deposits.

Beetroot Juice Can Prevent Strokes & Heart Attacks: Beetroot juice has been shown to reduce high blood pressure. It affects an estimated 25% of the world’s adult population and is a significant factor in coronary heart disease and strokes.

Researchers at Barts’ Hospital (London) and the London School of Medicine found that drinking 500ml of beetroot juice a day can significantly reduce high blood pressure, for over 24 hours after drinking.

Whilst most of us would not fancy a pint of red stuff every morning, health research gives us a very big recommendation that including at least some beetroot in our diet on a daily basis will be good for us. Beetroot leaves can be eaten raw when young.

Beetroot is a super-storehouse of both vitamin C and iron, which is great news for your body. Both are essential elements for health, but many of us struggle to absorb enough iron. Luckily,





good old Mother Nature included extra vitamin C in her beetroots and this vitamin helps increase iron absorption!

Vitamin C is water soluble, which means it leaches out of veggies when you cook them in water. So, the easiest way to get your combo-fix is to eat raw beetroot.

Incidentally, young beetroot leaves

are a better source of iron than spinach!

The roots are a good source of many other vitamins and minerals, including folic acid, phosphorous, magnesium and B6.

Beetroot has been shown to contain the compound betaine, which enhances the production of the body's natural mood-lifter serotonin. So, munching

fresh beetroot can literally make you smile. Betaine is also useful for cardiovascular health. Beetroot's amazing range of vitamins and nutrients has been shown to boost your immune system, helping you better fight off infection. These nutrients help stimulate the reoxygenation of cells and the production of new blood cells. Pretty important stuff! ■





Creature of the Month

Nudibranch

A blob the size of a teacup slinks along the ocean floor in the shallow waters off of Australia. It's a type of sea slug called the nudibranch (NEW-dih-bronk), a slime-oozing creature with a boneless body. Many of them also sport brilliant colors and eye-catching patterns on their skin. In fact this sticky slug is often considered one of the most beautiful animals in the world. Over 3,000 species of nudibranchs exist, and most live in shallow, tropical waters. They can be anywhere from a quarter of an inch to 12 inches long and can weigh up to 3.3 pounds. These sea slugs spend their time sliding on their bellies around their habitat in search of snacks. The animals have a set of curved teeth, which they use to eat coral, sponges, and fish eggs off the ocean floor. Nudibranchs use tentacles on their heads to poke around for grub. The nudibranch's meals don't just satisfy its hunger—the food also gives the animal its coloring. When the sea slug eats, it absorbs and displays its prey's pigment—the substance that gives the prey its color. Some nudibranchs also absorb toxins from certain prey and secrete the poison from their own skin. This allows them to fend off enemies such as fish. So the nudibranch is stunning, resourceful, and it recycles? This slug sounds far from sluggish!



Flower of the Month

Gerberas



Gerbera is a genus of the family of sunflowers, Daisies and Asters - Asteraceae, with a wide distribution from Africa to Madagascar, tropical Asia and South America. Through hybridization, Gerberas are available in a massive array of colors. Gerbera flowers are available in almost all the colours of rainbow, except blue – if you see a blue one it was created artificially. The meanings of gerbera flowers stem from those attributed to the general daisy family. These meanings include innocence and purity. Daisies are also a classic symbol of beauty however, the gerbera variety holds an added meaning of cheerfulness, which stems from the assortment of colors available. Gerbera daisies are the fifth most used flower in cut arrangements and bouquets, straight after roses, carnations, chrysanthemums and tulips. The size of gerbera flowers varies, it could be as small as 7 cm in diameter all the way to the biggest ones which are around 12 cm in diameter. If you look at gerbera flower, you would think that it's just one big flower head with lots of small petals. In fact, the flower head is a huge cluster of hundreds of flowers. Gerbera flowers are used as model organisms in studying flower formations. There are currently around 40 documented species of gerberas around the world.



Poem

A Shadow from Before

Standing on the ocean shore
Waves rushing through my toes
Images run across my mind
From the days of long ago

A time when ships were massive
Cutting paths from port to port
Meeting people of different origins
Happy tidings to report

Yet in each and every country
And unbeknownst to them
A plague would soon pay visit
For lack of sanitation

Garbage soon drew rodents
With fleas that carried disease
Thousands started dying
Black Death had breached the seas

Fear then consumed me
In my environment did I see
A replay conjured from the past
A beach of scattered debris

Haven't we learned our lesson
And with this I must implore
Please open up your eyes and see
It's a shadow from before

Sylvia Stults

Interesting website

TOPOROPA

www.toporopa.eu



Can't afford that summer vacation schlepping around Europe? No worries, just pull up Toporopa on your nearest browser and learn all about the geographical, political, historical and economical aspects of the wonderful continent.

Quote

The proper use of science is not to conquer nature but to live in it.

~ *Barry Commoner*

International days

March
03

World Wildlife Day

The World is full of amazing creatures from every possible medium. From the birds of the air to the majestic whales of the sea, wildlife abounds in the most unusual and unexpected places. Wildlife benefits us in many ways, and has since time out of mind. World Wildlife day is a day to remind us of our responsibilities to our world and the lifeforms we share it with.

March
21

International Day of Forests

Trees—they produce the vast majority of the oxygen we need to survive; they provide us with much-needed shade on hot days, and they're just plain beautiful. For all of those reasons and many more, protecting the trees on our planet should be a real priority for all of us.

March
22

World Water Day

A day where people can focus on the many ways ordinary people can get involved in helping people reclaim some dignity and improve their long-term health through access to clean and safe water. Other water issues such as safeguarding aquatic eco-systems are also highlighted every year on this day. ■



Chukandar is a highly nutritious and delicious vegetable. Here are recipes with all such ingredients for hearty and healthy dishes. Enjoy!

Chukandar ka Raita

Ingredients

150grams Cooked beetroot
 1 small onion grated
 200 ml Natural yogurt
 Salt to taste
 1 teaspoon Sugar
 1 green chili chopped finely

Instructions

Mix the beetroot, grated onion, yogurt, salt, sugar and chili, combining well. Cover and chill until serving.



Chukandar sabzi

Ingredients

1 bunch beetroots with greens (3 medium)
 1 inch gingerroot
 1 medium green chili peppers
 1 teaspoon turmeric powder
 ½ teaspoon cumin seeds
 ¼ teaspoon black pepper
 ¼-½ cup olive oil as needed
 Water as needed

Instructions

Sprinkle cumin seed into frying pan. Dry roast or fry in olive oil until seeds darken and begin to sputter and pop. Add peeled minced ginger and sauté until ginger is completely cooked. Add oil or water and stir, as needed, to prevent sticking. Add green chilies to spices. Add turmeric and sauté, stirring to prevent sticking. Add black pepper. Prepare beets for cooking. Slice off any skinny protruding part of the beetroot extending beyond the bulb and the topmost portion of the beetroot bulb removing about 1 inch of stems with it as this portion of the beet can trap soil and grit even after careful rinsing. Slice beetroots into thin strips, or dice into small chunks. Slice stems and beet greens into 1-inch lengths. Chop greens crosswise, shredding into 1-2-inch pieces. Sauté sliced beetroots and beet greens with spices. Stir to mix well and prevent sticking.

Cover and steam for about 10 minutes, until tender. Check every few minutes to ensure beetroots and beet greens are cooking well and not sticking to pan. Serve with basmati rice or flatbread. ■

