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Yellow footed Green Pigeon

RESEARCH ABSTRACT

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LEAD STORY

HUMAN POPULATION GROWTH AND CLIMATE CHANGE

The largest single threat to the ecology and biodiversity of the planet in the decades to come will be global climate disruption due to the buildup of human-generated greenhouse gases in the atmosphere. People around the world are beginning to address the problem by reducing their carbon footprint through less consumption and better technology. But unsustainable human population growth can overwhelm those efforts, leading us to conclude that we not only need smaller footprints, but fewer feet.

Portland, Oregon, for example, decreased its combined per-capita residential energy and car driving carbon footprint by 5 percent between 2000 and 2005. During this same period, however, its population grew by 8 percent.

A 2009 study of the relationship between population growth and global warming determined that the "carbon legacy" of just one child can produce 20 times more greenhouse gas than a person will save by driving a high-mileage car, recycling, using energy-efficient appliances and light bulbs, etc. Each child born in the United States will add about 9,441 metric tons of carbon dioxide to the carbon legacy of an average parent. The study concludes, "Clearly, the potential savings from reduced reproduction are huge compared to the savings that can be achieved by changes in lifestyle."

One of the study's authors, Paul Murtaugh, warned that: "In discussions about climate change, we tend to focus on the carbon emissions of an individual over his or her lifetime. Those are important issues and it's essential that they should be considered. But an added challenge facing us is continuing population growth and increasing global consumption of resources. . . . Future growth amplifies the consequences of people's reproductive choices today, the same way that compound interest amplifies a bank balance."

The size of the carbon legacy is closely tied to consumption patterns. Under current conditions, a child born in the United States will be responsible for almost seven times the carbon emissions of a child born in China and 168 times the impact of a child born in Bangladesh.

The globalization of the world economy, moreover, can mask the true carbon footprint of individual nations. China, for example, recently surpassed the United States to become the world's leading greenhouse gas emitter. But a large portion of those gases is emitted in the production of consumer goods for the United States and Europe. Thus a large share of "China's" greenhouse gas footprint is actually the displaced footprint of high-consumption western nations.

largest population in the developed world, and is the only developed nation experiencing significant population growth: Its population may double before the end of the century. Its 300 million inhabitants produce greenhouse gases at a per-capita rate that is more than double that of Europe, five times the global average, and more than 10 times the average of developing nations. The U.S. greenhouse gas contribution is driven by a disastrous combination of high population, significant growth, and massive (and rising) consumption levels, and thus far, lack of political will to end our fossil-fuel addiction.

More than half of the U.S. population now lives in car-dependent suburbs. Cumulatively, we drive 3 trillion miles each year. The average miles traveled per capita is increasing rapidly, and the transportation sector now accounts for one-third of all U.S. carbon emissions.

Another one-fifth of U.S. carbon emissions comes from the residential sector. Average home sizes have increased dramatically in recent decades, as has the accompanying footprint of each home. Suburban sprawl contributes significantly to deforestation, reducing the capacity of the planet to absorb the increased CO2 we emit. Due to a dramatic decrease in household size, from 3.1 persons per home in 1970 to 2.6 in 2000, homebuilding is outpacing the population growth that is driving it. More Americans are driving farther to reach bigger homes with higher heating and cooling demands and fewer people per household than ever before. All of these trends exacerbate the carbon footprint inherent in the basic energy needs of a burgeoning U.S. population.

Globally, recent research indicates that assumptions regarding declining fertility rates used by the Intergovernmental Panel on Climate Change to develop future emissions scenarios may be overly optimistic. While fertility rates have generally declined over the past few decades, progress has slowed in recent years, especially in developing nations, largely due to cutbacks in family planning assistance and political interference from the United States. And even if fertility rates are reduced to below replacement levels, population levels will continue to climb steeply for some time as people live longer and billions of young people mature and proceed through their reproductive years. Per-capita greenhouse gas emissions may drop, but the population bulge will continue to contribute to a dangerous increase in greenhouse gases in the atmosphere.

Time is short, but it not too late to stop runaway global warming. Economy-wide reduction of greenhouse gas emissions to a level that brings atmospheric CO2 back from 386 parts per million to 350 or less, scaling back first-world consumption patterns, and long-term population reduction to ecologically sustainable levels will solve the global warming crisis and move us to toward a healthier, more stable, post-fossil fuel, post-growth addicted society.

LEAD STORY

Effects of Carbon Footprint

- By Kira Jaines

Overview

A carbon footprint is a measure of carbon dioxide emissions associated with an entity's activities. According to Encyclopedia Britannica, a carbon footprint includes direct emissions, such as from driving a car, as well as whatever emissions are required to consume any goods and services. Often, a carbon footprint includes the measure of other greenhouse gas emissions as well. The United States, with only 4 percent of the world's population, contributes 25 percent of the world's greenhouse gases. The average American produces about 20 tons of carbon dioxide each year. A large carbon footprint has detrimental effects on the environment.

Greenhouse Gas Emissions

Electricity generation and transportation-related activities account for well over half of the 14 percent increase in greenhouse gas emissions in the United States from 1990 to 2008. The Federal Transit Administration estimates that switching to public transportation instead of driving would allow the average American to reduce his or her carbon footprint by 10 percent. Americans could also reduce their collective carbon footprint by changing their incandescent bulbs to compact fluorescent lights, preventing the emission of 9 billion pounds of greenhouse gases.

Climate Change

Climate change is the ultimate effect of large carbon footprints. Greenhouse gases, whether natural or human-produced, contribute to the warming of the planet. From 1990 to 2005, carbon dioxide emissions increased by 31 percent. By 2008, the emissions had contributed to a 35 percent increase in radiative warming, or a shift in Earth's energy balance toward warming, over 1990 levels. The decade from 2000 to 2009 was the warmest decade on record worldwide, according to the U.S. Environmental Protection Agency's Climate Change Indicators Report.

Depletion of Resources

Large carbon footprints deplete resources on large and small scales, from a country's deforestation activities to one home's increased use of air conditioning. The more those with large carbon footprints use resources, the more greenhouse gases increase and spur further climate change. The Environmental Protection Agency suggests that consideration of different energy supplies and conservation of current ones will be needed to balance energy demand. Reducing carbon dioxide emissions as much as possible and off-setting the remaining emissions by planting trees, for example, or supporting alternative energy efforts, will help to reduce the negative effects of carbon footprints.

TIME SERIES ENVIRONMENT DATA

Water Quality of Major Lakes of Manipur during Oct-Dec 2015

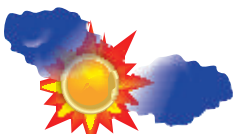
Sl. No.	Parameters	Sites/Lake							
		1	*2*	*3*	*4*	*5*	*6*	*7*	*8*
1	pH	7.36	7.25	7.65	7.24	7.56	7.54	7.32	7.28
2	B.O.D. (mg/l)	4.21	6.41	4.07	5.59	4.27	4.98	4.98	5.59
3	C.O.D. (mg/l)	7.36	8.73	6.12	8.67	6.34	6.24	7.45	8.71
4	Nitrogen (mg/l)	1.31	1.21	1.21	1.46	1.19	1.15	1.26	1.42
5	Phosphorus (mg/l)	0.74	1.02	0.82	1.18	0.87	0.65	1.16	1.21
6	Potassium (mg/l)	4.67	5.67	5.00	4.67	6.67	4.00	4.00	5.00
7	Total Coliform / 100ml	254.13	310.33	241.51	254.67	281.37	261.73	274.62	291.03
8	Faecal Coliform	125.26	124.33	121.67	124.60	148.63	134.67	164.23	157.62

Sites:- 1. Aongbikhong 2. Heingang Pat 3. Ikop 4. Kharungpat 5. Loktak 6. Pumlen 7. Sanapat 8. Waithou pat
Source: Directorate of Environment, Govt. of Manipur

Water Quality of Major Rivers of Manipur during Oct-Dec 2015

Sl. No.	Parameters	Sites/River							
		Imphal River			***Nambul River***			***Iril River***	
		1	*2*	*3*	*4*	*5*	*6*	*7*	*8*
1	pH	7.72	7.88	7.89	7.62	7.34	7.38	7.46	7.54
2	B.O.D. (mg/l)	4.27	4.58	5.19	5.19	7.93	6.41	3.45	5.68
3	C.O.D. (mg/l)	6.23	7.26	8.53	6.23	14.12	15.68	2.68	8.45
4	Nitrogen (mg/l)	0.39	0.82	0.89	0.56	2.67	2.13	0.52	0.58
5	Phosphorus (mg/l)	0.28	0.46	0.67	0.41	1.34	1.08	0.35	0.48
6	Potassium (mg/l)	4.00	7.00	9.00	4.00	27	24.00	5.00	8.00
7	Total Coliform / 100ml	340	620	670	340	1600	1400	380	570
8	Faecal Coliform	220	340	360	260	820	680	130	230

Sites:- 1. Koirengei 2. Minuthong 3. Singjamei 4. Iroisemba 5. Hump Bridge 6. Hiyangthang 7. Sawombung 8. Lilong
Source: Directorate of Environment, Govt. of Manipur



Weather Report of Manipur during Oct-Dec 2015

Districts	Temperature in (°C)		Relative Humidity (%)		Wind Speed (mtrs/sec)	Total Rainfall (mm)
	Maximum	Minimum	Maximum	Minimum		
Senapati	32.72	0.37	100	21.46	1.33	137
Tamenglong	37.4	4.62	100	26.5	1.41	179.32
Churachandpur	33.68	3.78	100	27.21	1.25	231.67
Ukhrul	27.86	3.61	100	11.05	2	113.34
Imphal East	35.44	8.28	99.98	29.52	0.59	137.02
Imphal West	33.6	2.61	100	30.96	0.83	461.29
Chandel	34.27	8.3	99.54	37.23	1.64	177.88
Thoubal	35.46	5.62	100	0	1.44	19.67
Bishnupur	32.48	9.21	98.1	36.29	0.59	215.46

1. Senapati District Headquarter 2. Tamenglong (Noney) 3. Churachandpur (Renkai village)
4. Ukhrul (Shirui village) 5. Imphal East (Yaralpat and Environment Office complex, Porompat)
6. Imphal West (Kangla) 7. Chandel (Moreh) 8. Thoubal (Kakching) 9. Bishnupur District Headquarter.

Source: Directorate of Environment, Govt. of Manipur

BIODIVERSITY OF MANIPUR

Spotted dove

Streptopeliachinensis(Scopoli, 1786)

Local name: Lamkhunuhawai-maan

Order: Columbiformes Family: Columbidae

Description: Length c. 30 cm. Slender pigeon, pinkish brown and grey above, spotted with white and with a conspicuous white-and-black 'chessboard' at base of hindneck. Sexes alike.

Habitat : Affects well-wooded moist deciduous biotope chiefly plain and foothills, keeping to paddyfields, etc.

Distribution:Bishnupur, Chandel, Churachandpur, Imphal East, Imphal West, Jiribam, Senapati, Tamenglong, Thoubal and Ukhrul.

Spotted dove

Oriental turtle dove

Streptopeliaorientalis (Latham, 1790)

Local name: Leimakhunu, Khunuchaphubi

Order: Columbiformes Family: Columbidae

Description: Length c. 33 cm. Reddish brown dove, scaly pattern above and black-and-white 'chessboard' both sides of neck. Tail broad, round with white terminal band.

Habitat : Affects oak and other mixed deciduous forest, often around cultivation.
Distribution:Bishnupur, Churachandpur, Imphal East, Imphal West, Jiribam, Senapati, Tamenglong and Thoubal.

Oriental turtle dove

Red Collered Doves

Streptopeliatranquebarica (Hemann, 1804)

Local name: Wakhunungak-ngang

Order: Columbiformes Family: Columbidae

Description: Length c. 23 cm. Brightly coloured little dove, grey pinkish and brick-red overall, with a narrow black collar on hindneck. Female has darker buffish-grey underparts.
Habitat : Affects scrub jungle and open cultivated areas.
Distribution:Bishnupur, Chandel, Churachandpur, Imphal East, Imphal West, Tamenglong, Thoubal and Ukhrul.

Red Collered Doves

Photograph by Shri Khoyumthem Brajeshkumar (khoyumthemb1k@gmail.com), Soibam Leikai, Imphal East, a freelance photographer and film maker.

Species identified by Kuman Jugeshor *jugeshor@yahoo.co.in*

IN FOCUS:

Wildlife week celebration 2015 and Protected Areas of Manipur

Shri Bala Prasad who is considered as one of the pioneers in the Scientific Management of Protected Areas in Manipur was very keen to host a "National or International Workshop on Conservation and Management of Sangai (Rucervus eldii eldii)" at Imphal. Sir Prasad has written the first ever Scientific Management Plan of the only floating National Park in World i.e. Keibul Lamjao National Park for the plan period of 2001-02 to 2009-10. The Plan is also the first ever Management Plan of any Protected Areas of Manipur. All the officers present were happy to learn that a National or International Workshop on Sangai, our State Animal which is also fondly named as "Ningthem" is being held at Imphal.

I was also extremely happy as an ex-Field Manager of Keibul Lamjao National Park and associated in the estimation of population of Sangai and other mammals in 2013.

But taking the opportunity; I tried to submit a humble suggestion to the respected Chairman of the meeting to kindly strengthen the Wildlife Administration in the Protected Areas of Manipur and also to bring more Forest Areas under Protected Areas so as to achieve the target of 10% Geographical Area of the State under Protected Area Network as envisaged in the National Wildlife Action Plan (2006-2011).

I am very much thankful to Sir Prasad for providing me some precious time to highlight conservation status of important wildlife other than Sangai which are endangered and included in the Schedule I of Wildlife Protection Act 1972. He has also enlightened me about the existing situation of land holding especially in the hill Districts. He is in the opinion of setting up of wildlife rich areas in Hill Districts as Bio-diversity heritage sites, which does not affect the ownership of the selected Forest land.

The Conservation status of the following endangered wildlife which are found in Manipur and many of which are included in the Schedule I & Part II of Schedule II of Wildlife Protection Act 1972 are yet to be satisfactory.

The important species are
(1) Royal Bengal Tiger (Panthera tigris tigris),
(2) Hoolock gibbon (Bunopithecus hoolock/ Hylobates hoolock)
(3) Mainland Serow (Naemorhedus sumatraensis/Capricornis sumatraensis),
(4) Clouded leopard (Neofelis nebulosa)
(5) Common Leopard (Panthera pardus),
(6) Golden Cat (Felis temmincki),
(7) Leopard cat (Felis bengalensis),
(8) Indian python (Python molurus)
(9) Nongin (Mrs Hume bar backed pheasant) (Syrmaticus humiae humiae)
(10) Migratory Raptor Amur falcon (Falco amurensis) found in Tamenglong
(11) Shiri, Grey Sided thrush (Turdus feae) found in Ukhrul
(12) Burmese Green Peafowl (Pavo muticus) found in Chandel
(13) Manipur bush quail (Perdicula manipurensis)
(14) Blyth tragopan (Tragopan blythii) found in Tamnglong
(15) Great hornbill (Buceros bicornis),
(16) Rufous-necked Hornbill (Acerros nipalensis)
(16) migratory Geese and ducks and many other species.

The ground Lily; Shiroi Lily (Lilium mackliniae) and Dzuko Lily (Lilium chitrangadae) should be brought under protected plants (Schedule-VI) of WPA 1972.

The habitat and the State Bird of Manipur Nongin (Mrs Hume bar backed pheasant) (Syrmaticus humiae humiae) at Razai Khullen should be protected. Razai Khullen has many natural salt licks which attract many wild buffalos from neighboring Myanmar. At present protection level in hill districts of Manipur is yet to be effective because many of important Wildlife species are found outside the proposed protected areas and these proposed protected areas located in different hill districts of Manipur are awaiting final declaration and also these areas are administrated by a single Wildlife Division. Shri P.N. Prasad APCCF (WL) & Chief Wildlife

ENVIRONMENT EVENTS

World Food Day

World Food Day is celebrated every year around the world on 16 October in honor of the date of the founding of the Food and Agriculture Organization of the United Nations in 1945. The day is celebrated widely by many other organisations concerned with food security, including the World Food Programme and the International Fund for Agricultural Development.

The World Food Day theme for 2014 was Family Farming: “Feeding the world, caring for the earth”

World Food Day (WFD) was established by FAO's Member Countries at the Organization's 20th General Conference in November 1979. The Hungarian Delegation, led by the former Hungarian Minister of Agriculture and Food Dr. Pál Romány, played an active role at the 20th Session of the FAO Conference and suggested the idea of celebrating the WFD worldwide. It has since been observed every year in more than 150 countries, raising awareness of the issues behind poverty and hunger.

Themes

Since 1981, World Food Day has adopted a different theme each year in order to highlight areas needed for action and provide a common focus.

Most of the themes revolve around agriculture because only investment in agriculture – together with support for education and health – will turn this situation around. The bulk of that investment will have to come from the private sector, with public investment playing a crucial role, especially in view of its facilitating and stimulating effect on private investment.

In spite of the importance of agriculture as the driving force in the economies of many developing countries, this vital sector is frequently starved of investment. In particular, foreign aid to agriculture has shown marked declines over the past 20 years.

International Day for Preventing the Exploitation of the Environment in War and Armed Conflict

The United Nations' (UN) International Day for Preventing the Exploitation of the Environment in War and Armed Conflict is annually held on November 6. It aims to educate people about the damaging effects of war and armed conflict on the environment.

What Do People Do?

Many people around the world, including government officials, scientists, journalists, educators, and business people, observe the UN's International Day for Preventing the Exploitation of the Environment in War and Armed Conflict. Those who take part in the day spend time discussing about how the effects of war are damaging to the natural environment. They also work together to find ways to limit environmental destruction caused by armed conflict and war. Seminars, speeches, lectures, news articles, radio talks, and classroom activities in schools that focus on the topic are some of the events that take place on this day. People learn and share information about the dangers of new technologies in war such as depleted uranium ammunition, which poses unknown threats to the environment. People around the world are also made aware that all efforts must be taken to limit environmental destruction caused by conflict.

Public Life

The United Nations' (UN) International Day for Preventing the Exploitation of the Environment in War and Armed Conflict is not a public holiday so public life is not affected.

RESEARCH ABSTRACT

Antidiabetic plants used in Thoubal district of Manipur, Northeast India

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[2]Department of Life Sciences, Manipur University, Manipur, INDIA

ABSTRACT: The ethnic communities of Thoubal district in Manipur uses various plants in alleviating various diseases that are inherited from the forefathers through oral folklores. An attempt has been made to document the precious traditional knowledge about the uses of 54 plant species in treating diabetes by different ethnic communities in the district.

KEYWORDS: *Traditional Knowledge, Ethnomedicine, Meitei, Meitei-pangal, Diabetes, Manipur*

Full paper will be available at www.manenvis.nic

ENVIRONMENT NEWS (in abstract)

12 rare wild animals relocated in Yangoupokpi Lokchao Wildlife Sanctuary

Imphal, October 05 2015: People for Animals Manipur (PAM) relocated 12 rare wild animals in the Yangoupokpi Lokchao Wildlife Sanctuary, Chandel district on Sunday.PAM celebrated the World Animal Day 2015 and its 4th foundation day on Sunday.The programme was conducted under the banner "New Home" .The animals relocated were two Barking Deers, two Bengal Slow Lories, five common cobras and one elongated turtle.The recued animals were injured or sick due to recent flood in the State...
Source: Hueiyen News Service

Big python rescued by KEMADO

Imphal, November 06 2015 : Kwatha Environmental Management and Developmental Organisation (KEMADO) rescued a ten feet long Rock phython at Kwatha village of Chandel district.A press note issued by Peoples for Animals, Manipur (PFA) said that some members of KEMADO found the python being brought from nearby forest by few fishermen...
Source: Hueiyen News Service

Migratory birds flock Yaralpat

Imphal, December 27 2015: Following restoration of Yaralpat , to some extent to its original shape, migratory birds have started arriving at the wetland after a gap of many years.
Source: The Sangai Express

Note: Full news are available at http://www.manenvis.nic.in

For further information, please contact
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