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PM crop insurance scheme has covered 26% of farmers



The government may cross the target of 30 per cent coverage for both kharif and rabi seasons this fiscal

New Delhi, December 7:

The Pradhan Mantri Fasal Bima Yojana, the comprehensive crop insurance scheme launched this year by the government, has provided coverage to over 26 per cent farmers and is likely to cross the target of 30 per cent coverage for both kharif and rabi seasons in 2016-17, the Agriculture Ministry has said.

“In terms of total area covered, the achievement has been significant amounting to a total area of 388.62 lakh hectare and sum insured of ₹1,41,339 crore. The performance this season has improved by 18.50 per cent in terms of farmers coverage, 15 per cent in terms of area coverage and 104 per cent in terms of sum insured....” an official release circulated by the Agriculture Ministry on Wednesday stated.

In comparison, in kharif 2015 the number of farmers covered was 309 lakh (22.33 per cent), total area coverage was 339 lakh hectare and sum insured was ₹69,307 crore, the release added.

The performance in kharif 2016 (June-September) is better despite the fact that there were teething issues such as a delay in notification of the scheme by many States. The cut-off date

for availing insurance was extended July 31, 2016, which was later extended to August 10, 2016.

Furthermore, there has been a quantum jump of more than 6 times in the coverage of non-loanee farmers from 14.88 lakh in kharif 2015 to 102.6 lakh in kharif 2016, the release said.

The PMFBY, which replaced the older National Agricultural Insurance Scheme (NAIS) and the modified NAIS, seeks to provide comprehensive insurance to farmers against the vagaries of nature at very low premia of 2 per cent of the insured value for the kharif crop and 1.5 per cent for the rabi season.

Fish to combat weed menace in water bodies

Kochi, December 7:

At a time when the excessive growth of aquatic weeds is posing a threat to the ecosystem of the fresh water resources, Ernakulam Krisjhi Vigyan Kendra of Central Marine Fisheries Research Institute has launched an initiative of growing fishes in the ponds to tackle the weed menace.

The KVK started the innovative technology of growing grass carp (*Ctenopharyngodon idella*), a fresh water fish which consumes the aquatic weeds as feeds, to eliminate the aquatic weeds from the fresh water resources. It consumes the weeds as feeds up to the extent of 2 to 3 times of its body weight.

A Gopalakrishnan, Director, CMFRI, launched the programme by releasing fingerlings of grass carp into a temple pond in Thripunithura near Kochi. Among the 140 species of aquatic weed in the water bodies, the varieties such as salvinia, hydrilla and pistia are the most detrimental to the fresh water resources, he said. Grass carp consumes the weeds as feeds up to the extent of 2 to 3 times of its body weight.

Rabi sowing progress: a silver lining

Even as the farm sector is widely believed to be facing the unintended consequences of the recent currency demonetisation, ground reports of planting for the upcoming rabi harvest provide some consolation.

Three weeks after the decision to withdraw high-denomination currencies was announced, the impact on rabi planting appears rather limited.



Indeed, in the case of major rabi season field crops — wheat, pulses and oilseeds — the area planted so far is slightly ahead of last year's. As of December 2, wheat sowing was reportedly completed on 17.4 million hectares (mh), ahead of 15.2 mh this time last year, according to the Ministry of Agriculture.

Of course, we still have some way to go before completing wheat sowing over 29-30 mh; but the progress so far is not a cause for concern.

Pulses are key

Pulses have been in the news for the last two years. The rabi harvest represents close to two-third of the annual production. Again, as of December 2, pulses have been planted on 11.3 mh, showing a 10 per cent increase over last year's 10 mh this time. It should come as no surprise if the final planted area for pulses turns out to be around 15 mh.

Chana is the country's dominant pulse crop, accounting for over 40 per cent of annual pulse output. Total acreage under chana or gram is usually about 9-10 mh. As of December 2, the area planted is estimated at 7.7 mh, ahead of last year's 6.9 mh. Given that open-market chana prices have been ruling at exorbitant levels, the final acreage numbers are expected to breach the norm.

Oilseeds are no exception. Again, as of December 2, the area planted stood at 7.1 mh versus 6.4 mh this time last year, with rapeseed-mustard — the main rabi oilseed crop — planted on 6.2 mh, higher than last year's by 12 per cent.

Despite satisfactory progress so far, concerns persist. Importantly, the pace of planting has to continue over the next two weeks so that rabi crop acreages eventually revert to the mean, if not overshoot the norm. It is unclear if demonetisation will hamper planting in the days ahead; but there is belief that the worst is over and availability of cash in rural areas is improving. The government has announced a minimum support price for various crops; but will the growers actually receive strong procurement support at harvest time?

Winter rain critical

Importantly, concerns over wheat are growing. Soil moisture conditions in the North-West region are not exactly satisfactory. So, winter rains become critical. If the India Meteorological Department forecast that winter will be mild turns out right, the day temperatures may not be cool enough for the wheat crop.

So, New Delhi must take cognisance of emerging risks to the wheat crop and take appropriate risk-management measures.

Demonetisation and its after-effects seem to have garnered everyone's attention. The country desperately needs a large harvest of rabi crops so as to be able to contain food inflation. Close attention to the progress of rabi crops and readiness to step in with proactive initiatives is necessary.

The writer is a global agri-business and commodities specialist. The views are personal.

Weather vagaries rob jasmine of fragrance



The production of jasmine flowers has come down drastically and the price, too, has declined. This year, Jasmine flower has been cultivated over 50,000 acres of land in Erode district.

During the peak harvest season, from March to October, 25 tonnes used to arrive daily and flower cultivators were able to get ₹500-1,500 a kg. “Jasmine production has gone down to 1.5-2 tonnes a day. This is due to the failure of seasonal rains and also heavy frost,” said Muthuswamy, Secretary of the Sathyamangalam Flower Cultivator Farmers Association.

On Wednesday, 1.5 tonnes arrived and fetched ₹350/kg.

The prevailing frost has affected arrivals as many plants have started withering.

The plucked flowers are also not of good quality, so buyers quoted lower prices, he added.

Muthuswamy said the price of other flowers such as Arabian jasmine (mullai) and Magnolia champaca (Sampangi) have also decreased. The former was sold at ₹300 per kg on Wednesday. Two days back, the Arabian jasmine fetched ₹700/kg and after closure of the flower auction on Tuesday the price did not improve on Wednesday.

Use of 51 pesticides banned elsewhere allowed in India, Centre tells high court

Status of 27 of them to be reviewed in 2018

New Delhi, December 7:

The Centre told the Delhi High Court on Wednesday that it has decided to allow the continued use of 51 out of the 67 pesticides that have been banned world over, based on the recommendations of an expert panel.

The Ministry of Agriculture submitted before a Bench of Chief Justice G Rohini and Justice Sangita Dhingra Sehgal that of the 51, the status of 27 pesticides will be reviewed in 2018.

Objections sought

The Centre also said that though the panel had recommended phasing out of six pesticides out of the 51 by the year 2020, a final decision would be taken after going through the objections and suggestions invited from the general public and the stakeholders.

Objections and suggestions have also been invited regarding the recommended complete ban of 13 other pesticides, the ministry told the Bench.

The government, however, has accepted the panel's recommendation to ban use of one pesticide, fenitrothion, in agriculture.

In view of the submissions made by the government, the petitioner who had sought immediate ban on some the pesticides withdrew his PIL to file a fresh one, challenging the setting up of the panel and for constituting a fresh one.

Endosulfan ban to stay

The Centre, in its report placed before the court, has said that ban on Endosulfan would continue as it was ordered by the Supreme Court.

Regarding use of DDT, the ministry has said that it was being used by health departments in limited quantities for vector (mosquito) control programmes and any final decision to ban it would be taken after receiving comments of Directorate of Plant Protection Quarantine and Storage.

The petitioner, KV Biju had alleged "conflict of interest" against the expert committee for having representatives from the pesticide industry who, it claimed, had vested commercial interest. He had contended that the panel had "heavily relied" upon the inputs of the members from the pesticide industry.

As per the petition, the expert panel was set up by the Agriculture Ministry to look into 67 pesticides which were banned in other countries but continued to be used in India.

Soyameal exports seen reviving as prices turn competitive

The current uptrend in export shipments of soyameal, at the beginning of the season, has set an optimistic tone for exporters from India.

Aided by a favourable currency trend and lower domestic prices, Indian soyameal exports are set to make a comeback in the world market after two years of tepidity.



According to the latest export data shared by the Soyabean Processors Association of India (SOPA), soyameal (HS Code 2304) exports in November jumped by 104 per cent to 61,003 tonnes compared to 29,801 tonnes in the same month last year.

In the current oil year (October 2016-September 2017), total exports in the first two months totalled 80,142 tonnes (71,905 tonnes), showing an increase of 11.45 per cent.

Higher export hopes

“This is just a start and we will see better volumes by the end of December. In the last month, supplies were subdued and the crushing activities were not in full swing. But now, it is getting normal and we expect about 200,000 tonnes of soyameal exports by January and more than one million tonnes of exports by March 2017 if prices remain in line," said Davish Jain, Chairman, SOPA.

Currency factor

The recent currency decline means better dollar realisations for the trade, thereby making it competitive and more effective in the international market. Trade sources estimate robust exports this year as compared to the last two years.

Indian soyameal exports had to suffer due to higher domestic prices.

This year, soyabean production is estimated at around 14.2-15 million tonnes, which is higher than the targeted 13.6 million tonnes.

The prices are seen under control mainly due to higher availability of seeds rather than the domestic requirement.

Notably, soyameal exports were reported at 3.47 million tonnes during the 2012-13 marketing year (October-September).

Subsequently, soyameal exports from India fell due to farmers reportedly hoarding the stocks, thereby affecting crushing activity.

This led domestic prices higher and out of parity with prices on the global market.

Business Standard

Creating separate agency to manage pulses buffer not feasible: CACP Chief

Interview with Vijay Paul Sharma, chairman of the Commission for Agriculture Costs and Prices



CACP chairman Vijay Paul Sharma

The Commission for [Agriculture](#) Costs and Prices (CACP), the main price setting body of the government has a vital role to play in ensuring that [farmers](#) income is doubled in line with the

Centre's objective. In an interaction with *Sanjeeb Mukherjee*, [CACP](#) chairman **Vijay Paul Sharma** said that [MSP](#) is just one tool to boost farm growth and so far it has declared an [MSP](#) which is more than cost. He also disregarded the need for a separate agency to manage [pulses](#) buffer stock. Edited Excerpts

In the last two years, there has been a lot of criticism of Central government on the grounds that it has failed to adequately provide remunerative prices to [farmers](#) at a time when they were suffering from drought and were also troubled by a sharp drop in farm-gate rates. How do you respond to this?

Pricing policy is one of the instruments to improve agricultural productivity and growth. We need to work on non-price instruments, namely, technology, institutions and infrastructure. While recommending price policy, the Commission considers various factors such as the cost of production, supply-demand and price trends in domestic and world markets, inter-crop price parity, terms of trade and likely implications of [MSP](#) for consumers and the economy. So, despite a significant decline in international prices of food commodities, minimum Support Prices of cereals have increased by about 4.4 per cent, [pulses](#) by 9.5 per cent and oilseeds 5.5 per cent per annum during last two years.

The Arvind Subramanian Panel on [pulses](#) has laid down the rate at which [pulses](#) [MSP](#) should be fixed for next rabi and [Kharif](#) season. Do you feel giving such huge jumps in [MSP](#)s is realistic and will you adhere to those recommendations on [MSP](#) for coming two seasons?

I agree with the recommendation of the committee that there is a need to incentivize [pulses](#) producers but while recommending the [MSP](#) we need to look into farmer's interest as well as consumer's interest. The Commission had also recommended a significant increase in [MSP](#) of rabi [pulses](#) and in addition government has given a bonus to incentivise cultivation of [pulses](#) and oilseeds. I believe that it would encourage [farmers](#) to grow [pulses](#) and oilseeds.

The Panel has also suggested the creation of separate agency on the lines of the GST Network to handle the huge buffer stock of pulses, which the Centre now plans to create. Do you think we need a separate agency to handle [pulses](#) buffer or it can be done by the existing ones by just tweaking their operational efficiency?

I think basic idea is to create a system of procurement, which is effective and efficient. The existing agencies have been able to handle procurement of [pulses](#) quite efficiently during [Kharif](#) season. To manage 2 million tonnes of buffer stock of pulses, it may not be feasible to create a separate agency.

A [NITI Aayog](#) report on the efficacy of MSPs released earlier this year showed that almost 79 per cent of the [farmers](#) were dissatisfied with the MSP, though they didn't want it to be discontinued. What should be done to ensure that MSPs become relevant for the farmers?

I think an important point here is that [farmers](#) want [MSP](#) to be continued but there is a need to make MSPs more effective in terms of coverage of more crops and states. We must ensure that farmer is not forced to sell his produce below [MSP](#) but that needs strong support, cooperation and participation of State governments in procurement operations. For example, farm harvest prices even in some of the major producing states like Uttar Pradesh, Bihar, Assam, etc. fall below [MSP](#) due to ineffective procurement operations.

The MSP's of wheat and paddy have been raised by less than 5 per cent in the last two, which is well below their cost of production. Do you intend to correct this in the near future?

It's true that [MSP](#) of paddy and wheat has been increased by less than 5 percent during last two years but the hikes were not below the cost of production. For example, the cost of production (C2) increased by about 3.5% per year in the case of paddy and 1.5% in wheat between 2014-15 and 2016-17 but [MSP](#) of paddy increased by about 4% and that of wheat by 4.3%.

One big criticism of this government is that it has gone back on its promise to give an [MSP](#) which would be at least 50 per cent over their cost of production. How do you respond to this?

I think too much focus on pricing is not a good policy instrument. We need to improve farm profitability.

Also, though there has been a renewed and well-intended focus on raising [pulses](#) MSPs, but it has not always translated into a big switch in area, except perhaps in 2016 Kharif, but that too many experts are saying is due to farmers' reaction to super-normal market prices. What do you have to say about this?

Prices play an important role in crop acreage allocation decisions by [farmers](#) and thereby increasing production. However, an increase in [MSP](#) must be backed by effective procurement. The Procurement agencies have procured about 2 lakh tonnes of arhar and 83 thousand tonnes of moong during this season, which is a commendable achievement.

Many times, it has been seen that MSPs have been declared either in the middle of sowing season and sometimes even late, which stops the farmer from taking the informed decision. How do you plan to correct this?

Generally, the MSPs are announced before the sowing season. The [CACP](#) submits price policy reports well before the sowing season, e.g. [Kharif](#) price policy report is submitted on 31st March and rabi report on 31st July. Similarly, sugarcane report is submitted by 15th August, copra by 7th September and jute by 15th October.

Many [farmers](#) and industry associations particularly from the sugar sector complain that the calculation done by [CACP](#) to arrive at the average cost of production is faulty, which is why despite a sharp increase in cost, the FRP of sugarcane hasn't gone up by much. How do you respond to such criticism?

The Commission uses data provided by Directorate of Economics and Statistics, Ministry of [Agriculture](#) & [Farmers](#) Welfare, under the "Comprehensive Scheme for Studying Cost of Cultivation of Principal Crops in India" covering about 19 States and 8200 sample households. There is a scientific method of sample selection, data collection and analysis, so it's not true that estimates of the cost of production used by [CACP](#) are faulty.

Of late there has been a talk of deficient-financing to compensate for the losses. However, it has not been successful in the first two attempts in cotton. What are your views on this?

I think you are talking about Price Deficiency Payment as recommended [NITI Aayog](#) in its Occasional Paper on Raising Agricultural Productivity and Making Farming Remunerative for Farmer. The concept is similar to [Agriculture](#) Risk Coverage (ARC) and Price Loss Coverage (PLC) programmes under the 2014 Farm Bill of the US. It is a good concept but there are implementation problems. In order to implement Price Deficiency payments, we need to create an appropriate eco-system and more importantly strong interest and commitment of the state governments.

Finally, as per you what should be the direction of India's price policy of [agriculture](#) to ensure that on one hand, [farmers](#) get adequate compensation, while on the other consumers don't end up paying through their nose?

I firmly believe that agricultural price policy should be remunerative enough to incentivise [farmers](#) to adopt new technologies, which will increase production and productivity and reduce the cost of production leading to a win-win situation for [farmers](#) and consumers.

Centre claims PM's Agri Insurance Scheme to cover 15% more farmers this year

In the preceding 2015 kharif season, according to Centre's estimates, almost 26.04 farmers have been covered



The Centre on Wednesday claimed that more than 30% of the total around 14 crore farmers will be covered under the Pradhan Mantri Fasal Bima Yojana by the end of the current rabi [sowing](#) season, well above the target.

In the preceding 2015 kharif season, according to Centre's estimates, almost 26.04 farmers have been covered.

"At this rate, the government is well on course to cover almost 50% of farmers or 7 crore farmers under Fasal Bima Yojana in the next three years," a senior official said.

This has come despite 2015 being a drought year when the period of availing insurance was extended till September.

The total area covered under the scheme in the 2016 kharif season according to the latest estimates has been around 38.86 million hectares, up 15% from previous kharif season, while the sum insured this year has been around Rs 1,41,339 crore, almost 104% more than kharif 2015.

The Fasal Bima Yojana was launched with much fanfare in 2015 kharif is one of most ambitious programmes of the Narendra Modi government.

Furthermore, the government claimed that there has been a quantum jump of more than 6 times in the coverage of non-loanee farmers from 14.88 lakh in Kharif 2015 to 102.6 lakh in Kharif 2016.



Enriched organic manure application for better organic crop

Kozhikode: The Krishi Vigyan Kendra, Peruvannamuzhi, is encouraging enriched organic manure application in the vegetable fields in the district in support of the State government's Haritha Keralam project.



In an awareness programme on organic vegetable cultivation organised on Monday on the occasion of World Soil Day, deputy director of Dairy Development M. Shobhana noted that organic vegetable production, though healthy and eco-friendly, was costly and also had marketing issues. Enrichment of farmyard manure and other organic inputs like adding pseudomonas, trichoderma and bio-fertilizers are the latest solutions identified to this problem.

To popularise this technique the Krishi Vigyan Kendra organised programmes on production and application of enriched organic manure for vegetables, ornamentals, spices and perennial and their suitable varieties. P. Raji, Associate Professor at Kerala Agricultural University, Pattambi, organised a special training session on 'Enrichment of soil and vermin-compost by using bio-control agents' while Pradeep Kumar T, Professor at Kerala Agricultural University, Thrissur, spoke on 'Good agricultural practices and organic vegetable cultivation'.

Earlier, Chakkittapara grama panchayat president Sheeja Sasi inaugurated the programme. She stressed on the efforts made by the government to make agriculture a profitable venture and its implementation at panchayat level. KVK Programme Coordinator P. Ratha Krishnan presided over the programme.

There were also lectures on 'Vegetable and spices cultivation' by P.S. Manoj, 'Eco-friendly bio-control measures and organic inputs in agriculture' by K.K. Aiswarya, 'Importance of soil health' by M.S. Mariya Dainy and awareness class on rabi cultivation and Prime Minister's Fasal Bhima Yojna (PMFBY) by P. Ratha Krishnan.

Soil health cards

Perambra block panchayat president Sathi A.C. distributed soil health cards and seedlings of cabbage and cauliflower to farmers. The soil health cards were distributed after analysing the nutrient content of soils collected from farmers' field. It contains present nutrient status and

recommendations for nutrient management in the said field. The farmers were also given a kit containing manual on vegetable gardening. The purpose is to demonstrate the impact of enriched organic manure application to around 200 farmers, who took part in the training programme.

Agriculture university convocation on Dec. 9

The second convocation ceremony of University of Agricultural and Horticultural Sciences (UAHS), Shivamogga, titled 'Suggi Sambhrama-2' will be held at Dr. B.R. Ambedkar Bhavan in the city on December 9, said its Vice Chancellor C. Vasudevappa.

The programme will commence at 11 a.m. S. Ayyappan, former Secretary of Department of Agricultural Research and Education and former Director General of Indian Council of Agricultural Research (ICAR) will deliver the convocation address.

Krishna Byre Gowda, Minister for Agriculture, will preside over the convocation ceremony, he said at a press conference here on Wednesday.

As many as 371 candidates who have passed graduation and post graduation courses in agricultural and horticultural sciences will receive their degrees at the ceremony. A total of 36 gold medals will be presented to 30 candidates. In addition to this, PhDs will be conferred on five candidates, he said.

To ensure close surveillance of the examinations for graduate and post graduate courses, CCTV cameras have been installed at exam halls. The university has also introduced digital evaluation system to avoid errors in the evaluation of answers scripts and delay in announcement of result, he said.

Replying to a query, he said the State Government had agreed to provide Rs. 150 crore to create necessary infrastructure at the new campus of the university that will come up in 800 acre land in Iruvakk village in Sagar taluk. Tenders have been floated for the construction work. Chief Minister Siddaramaiah will lay the foundation stone for the construction work in January 2017, he said.

The institute has also planned to organise a series of awareness programmes for the farmers to mark the centenary celebrations of Zonal Agricultural and Horticultural Research Station

(ZAHRS) of the university in Hiriyur. A building will be constructed at the cost of Rs 1.50 crore at the campus of ZAHRS to commemorate the centenary celebrations, he said.

Registrar P. Narayanaswamy, Director of Research Manjunatha Naik, Director of Extension T.H. Gowda were present at the press conference.

Coconut procurement for Kerafed mulled

Agriculture Minister V.S. Sunil Kumar has said that the government is examining the option of procuring coconut for the Kerakarshaka Sahakarna Federation (Kerafed) with the cooperation of cooperative societies.

Inaugurating the district conference of the All India Kisan Sabha (AIKS) here on Tuesday, the Minister said Kerafed was now in huge debt because of mismanagement.

There were allegations of corruption in the apex society of coconut farmers' societies during the tenure of the previous United Democratic Front (UDF) government, he added.

Noting that coconut cultivation could not be saved through subsidy alone, the Minister said value addition of coconut products was the answer to the problems being faced by farmers.

In Sri Lanka, value-added products accounted for 30 to 40 per cent of the coconut production while it was hardly four per cent here, he said.

Looming crisis

The Minister warned that the crisis in the agriculture sector would aggravate in the summer months because of the anticipated drought situation.

He said that after the Left Democratic Front government came to power, it initiated steps to clear arrears of crop damage compensation to farmers to the tune of Rs.82 crore. Arrears totalling Rs.28 crore had already been released, he added.

**DECCAN
Chronicle**

Kerala farmers bag genome awards

All three farmers nominated by Kerala Agricultural University.



Erumapetty Banana Growers Association members which won the Plant Genome Saviour Community award for the sustained efforts in conservation and promotion of Chengalikodan with their produce (file pic).

Thrissur: Kerala farmers once again made the state proud by winning four Plant Genome Savior awards (2014) declared by the Indian Protection of Plant Varieties and Farmers' Rights (PPV&FR) Authority. While two individual farmers, N. A. Chandran from Thrissur and Arvindakshan from Palakkad, have been selected for Plant Genome Savior recognition, N.M. Benny of Wayanad got Plant Genome Saviour Reward and Changanalikoḁan group, Erumapetty, Thrissur, has been bestowed with Plant Genome Saviour Community award. All these farmers were nominated by Kerala Agricultural University (KAU) which has been providing guidance and support to the farmers.

Last year ICAR had honoured KAU for its support for the farming community which had ensured notable presence of Kerala farmers in the list of awardees every year. Seven out of the 14 awards for 2013, which were presented last year, were bagged by Kerala farmers.

Mr Chandran of Vemballur, Thrissur, is maintaining a collection of 10 varieties of coconut, 20 varieties of mango, 33 varieties of bamboo, 10 varieties of heliconia and animal breeds from nearby and distant farmers' fields within and outside India. He is also maintaining Pokkali rice varieties and a traditional rice cultivar (Mundakan) apart from bamboo varieties.

Erumapetty Banana Growers Association won the plant Genome Saviour Community award for its sustained efforts in conservation and promotion of Chengalikodan, a banana variety with unique taste, shape and colour. This variety was recognised with Geographical Indication tag in 2015. KAU Vice-Chancellor Dr. P. Rajendran said the sustained efforts of the university's Intellectual Property Right (IPR) cell have helped the farmers bag the lion's share of Plant Genome Saviour Awards ever since they were instituted. "I congratulate the award winners as well as the IPR Cell for the consistence presence of Kerala farmers in award function every year. We are committed to the cause of biodiversity conservation," he said in a press release Tuesday. KAU Director of Extension Dr S. Estelita said that the awardees would be felicitated by KAU at the earliest.

Green leafy vegetables rich in magnesium reduce heart disease risk

An extra 100mg per day of dietary magnesium could also reduce risk of stroke by seven percent and type-2 diabetes by 19 percent.



The current health guidelines recommend a magnesium intake of around 300mg per day (Photo: AFP)

Washington: Including magnesium rich food like spices, nuts, beans, cocoa, whole grains and green leafy vegetables in your diet daily may reduce the risk of coronary heart disease, stroke and type-2 diabetes, reveals a study. The study was published in the open access journal BMC Medicine.

Researchers from Zhejiang University and Zhengzhou University in China found that people in the highest category of dietary magnesium consumption had a 10 percent lower risk of coronary heart disease, 12 percent lower risk of stroke and a 26 percent lower risk of type-2 diabetes compared to those in the lowest category.

Their results also indicate that an extra 100mg per day of dietary magnesium could also reduce risk of stroke by seven percent and type-2 diabetes by 19 percent.

"Low levels of magnesium in the body have been associated with a range of diseases, but no conclusive evidence has been put forward on the link between dietary magnesium and health risks," said lead study author Dr Fudi Wang from the School of Public Health at Zhejiang University.

"Our meta-analysis provides the most up-to-date evidence supporting a link between the role of magnesium in food and reducing the risk of disease," Wang added.

This analysis of the evidence on dietary magnesium and health outcomes is the largest to date, involving data from more than one million people across nine countries.

"The current health guidelines recommend a magnesium intake of around 300mg per day for men and 270mg per day for women. Despite this, magnesium deficiency is relatively common, affecting between 2.5 percent and 15 percent of the general population. Our findings will be important for informing the public and policy makers on dietary guidelines to reduce magnesium deficiency related health risks," Dr Wang explained.

Magnesium is vital for human health and normal biological functions including glucose metabolism, protein production and synthesis of nucleic acids such as DNA.

In this analysis, data from 40 epidemiological studies covering a period from 1999 to 2016 were used to investigate associations between dietary magnesium and various diseases.

In all the studies, levels of dietary magnesium were determined using a self-reported food frequency questionnaire or a 24-hour dietary recall.

The authors stated that their findings reinforce the notion that increased consumption of magnesium rich foods could be beneficial for overall health.