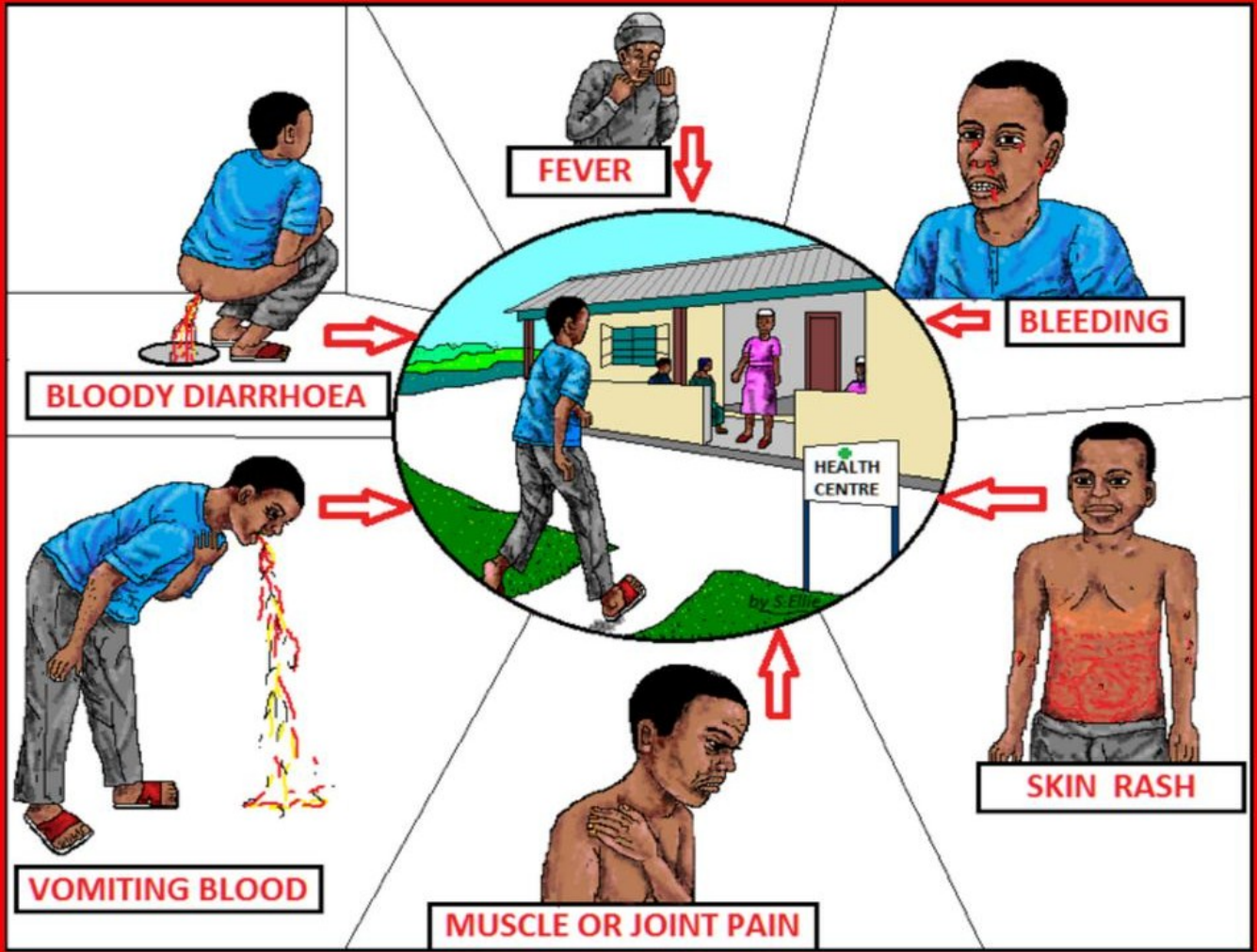


EBOLA

SIGNS & SYMPTOMS



IF YOU HAVE FEVER, DIARRHOEA AND VOMITING, WITH OR WITHOUT BLEEDING, GO TO THE NEAREST HEALTH FACILITY

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INSIDE DE FARM
Ministry of Agriculture, Forestry and Food Security
National Programme Coordination Unit Monthly Newsletter
Rehabilitation and Community-based Poverty Reduction Programme (RCPRP)
Rural Finance and Community Improvement Programme (RFCIP)

A RESCUE INDUSTRY FACING DANGER-Rural Finance & the EVD January, 2015

A total of 45 of the project's Rural Financial Institutions (RFIs) out of 68 are in the Ebola hot spot zones.

It will be stating the obvious to say that the Ebola Virus Disease (EVD) outbreak has its most telling effect on the Community Banks and Financial Services Associations in the rural financial sector as a whole. The EVD outbreak has completely destroyed small farms and businesses due to the trade and travel restrictions.



Most of the Sierra Leone Government Ministry of Agriculture Forestry and Food Security (MAFFS) and IFAD funded Rural Finance and Community Improvement Program's Community Banks and Financial Services Associations operate in the areas of the Ebola hot spots.

A total of 45 of the project's Rural Financial Institutions (RFIs) out of 68 are in the Ebola hot spot zones. The World Bank's recent figure of growth estimate of Sierra Leone was 4% by October 2014 while the pre-crisis growth estimate was 11.3%; leading the Bank to project a negative growth rate for Sierra Leone in 2015 due to the EVD outbreak wreaking havoc mostly on the 3 West African countries of Sierra Leone, Liberia and Guinea.

It's worth mentioning that all the 3 affected countries had been fighting to turn their economies and infrastructural developments around after decades of stagnation due to internal socio-political crises.

The print outs of the effect of this economic situation is already having its toll on the CBs and FSAs Portfolio at Risk (PaR) and profitability. High PaR and reduction in profitability is, of course, a matter of concern to the Apex Bank and the managing National Programs Coordinating Unit.

(Continued next page)

Inside De Farm Newsletter is a Monthly Publication of the National Programme Coordination Unit (NPCU). You can listen to Inside De Farm Hour on Saturdays (9:00-10:00am) & Wednesdays (9:00-10:00pm) on Star Radio & AIRadio in Freetown, Gola Agric. Radio in Kenema, Radio Njala at Njala campus, Kiss FM in Bo, Radio Bintumani in Kabala, etc. You can watch Inside De Farm TV Show on SLBC TV on Fridays, Saturdays, Sundays and Mondays. For all these and more, visit: www.npcu.org

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Newday
Magazine



Ebola having direct impact on PaR of FSAs and CBs



High PaR in return having effect on loan disbursements

As at the end of August 2014, a total of 728 deaths (due to the EVD) have been reported throughout the network of CBs and FSAs in Sierra Leone. There are also reports of migration of people from high EVD hot spot to lesser EVD affected areas. Peer pressure, the concept in which RFI's survival depends is categorically being lost due to the EVD.

Equally, the outbreak is having adverse effects on agriculture; manifesting itself at the various levels of the agriculture value chains with grim implications on the food security situation in Sierra Leone.

FAO Rapid Assessment Exercise found that agriculture remains the main source of livelihoods for the majority of rural households and that a large number depends on markets to access food while underscoring that illness and deaths of the productive age in agricultural communities result in adverse effects on agriculture, food security and nutrition.

That the Ebola crisis hit Sierra Leone during the main agricultural season paints a frightening picture of the food security situation; leaving in ruins weeding, harvesting and marketing. There are also other drivers militating against food security prospects under the situation.

Among them are fear, panic, quarantining and other restrictive measures emanating

from the government declaration of state of emergency to fight the EVD.

However, notwithstanding Ebola onslaught, the NPCU has cause to celebrate the outstanding achievement as winners of the **2014 IFAD Gender Award** and none the less, the continued operations of the Community Banks and Financial Services Associations whose benefits includes sustenance of the spirit of community ownership, sources of remittances to the communities, confidence builder to other community agencies and serving as means for salary payments to workers in the communities.

Including managing the Community Banks and Financial Services Associations across most of the country under the Rural Finance and Community Improvement Program, the NPCU pursues other poverty alleviation and community development interventions including local governance, feeder roads constructions, inland valley swamp (IVS) rice growth and farm land development among others.

“However, notwithstanding the Ebola onslaught, the NPCU has cause to celebrate the outstanding achievement as winners of the **2014 IFAD” Gender Award**”

Our Photo Gallery



NPCU Programme Coordinator in-between the Governor and his Deputy at the Apex Bank



NPCU Programme Coordinator receiving the IFAD Gender Award from the MAFFS Deputy Minister 2



Mission members and NPCU staff on Mid term Review of the Climate Change Project

investment risky and discourages farmers from producing more for the market. This represents a lost opportunity for farmers to raise their incomes, and for countries to develop the potential of smallholder agriculture to contribute to global food security.

Mitigating price volatility and IFAD's response

It is widely recognized that addressing the root causes of higher food prices and price volatility requires redressing the supply/demand imbalance, both globally and in developing countries – particularly where food insecurity is prevalent. Smallholder agriculture has a key role to play, because it provides up to 80 per cent of food consumed in Asia and sub-Saharan Africa, and because such a large share of the food insecure are themselves farmers. To redress this imbalance, smallholder farmers need to be able to benefit from higher prices and to be less exposed to the risks resulting from supply shocks and price volatility.

IFAD's work contributes to mitigating food price volatility by supporting smallholder farmers to produce more, in a more resilient and sustainable manner, and with better links to markets. We also help put in place the necessary institutional and policy environment for this transformation, and for the scaling up of successes. In addition, IFAD fosters household-level food security and nutrition strategies to help counter the effects of price hikes. In particular, we focus on:

- **Boosting household food security.** We fund projects to raise and stabilize the incomes of poor rural people so they can improve their food security.

We also strengthen household-level nutrition by helping to establish home vegetable gardens, improving access to safe water and supporting women's empowerment and well-being.

- **Increasing sustainable and resilient production.** We do this by building on best local practices while exploiting the latest research and technology and nurturing innovation. We focus not only on developing and making available improved technologies, but also on building the capabilities of poor rural people as producers and managers of increasingly scarce natural resources.
- **Strengthening the market integration of small farmers.** IFAD-supported projects increasingly promote the integration of smallholder farmers in agricultural value chains – from input and service provision to production, processing and marketing. We support improved post-production handling, processing and storage facilities and better interaction among farmers, service providers, traders and agribusiness firms.
- **Improving risk management.** We strengthen the capacity of smallholder farmers to withstand risks related to supply or price shocks through more-resilient production practices, better linkages among value chain actors and improved rural infrastructure. We also support improved risk management through organization of small producers and through innovative financial mechanisms to reduce investment risks, such as weather index insurance and supply chain financing.

NPCU ENDS THE YEAR ON THE ROAD



NPCU Programme Coordinator drawing the attention of Ing. at the site

The Programme Coordinator and team of the National Programme Coordination Unit (NPCU) have wrapped up their Annual work with a comprehensive end-of-year inspection of feeder road rehabilitation sites in its four operational districts.

The mission which started in the Koinadugu district, provided the organization's top management evidence-based information on project implementation progress and achievements so far carried on. The tour which followed a participatory and consultative approach ensured close

engagement with all stakeholders (including in particular the Contractors, SLRA Engineers and community members).

During the tour, the Programme Coordinator and team were able to inspect over Seventy per cent (70%) of all the Feeder roads under construction by the RCPRP. This was followed by a recommendation to meet with all the Road Contractors, in order to stimulate them to fast track their works.

Other issues like hostile local authorities/chiefs interference with the works and the restriction on the movement of labour into communities were highlighted and addressed by the involved parties.

It could be noted that before the rehabilitation of these Feeder roads, most of them, were in a very poor state and seasonally impassable especially for motorized vehicles, mainly due to lack of maintenance and washed away bridges.

An assessment once identified a number of chiefdoms having benefited from the feeder roads rehabilitation, and thousands of km of feeder/trunk roads being rehabilitated by the project between 2010 to date.

This again brings us to the importance of this end-of-year Field Supervision of Projects rehabilitated feeder roads within these four (4) districts.

The Governor, Banks of Sierra Leone pledges supports to the Apex Banks

The Governor of the Central Bank of Sierra Leone has registered his commitment and infringeable support to the Apex Bank of Sierra Leone. He made this pronouncement during a familiarization visit by the Central Bank to the Apex Bank in Kenema. The visit was geared at giving the Governor and team firsthand experience of the activities and operations of the Apex Bank as well as its Financial Services Associations and Community Banks.



The Managing Director of the Apex Bank welcoming his guests to the Bank Building in Kenema

Receiving the delegation of the Central Bank, the Managing Director of the Apex Bank Sierra Leone, Momodu Sesay described the visit as historical and highlighted some of the gains the institutions recorded over the years. Momodu Sesay further went on to lament on some of the constraints of the Bank; key among these, he noted is the minimum capital requirement the Central Bank is charging for registration.

The National Programme Coordinator of the two IFAD funded projects in the Ministry of Agriculture, Forestry and Food Security, Mohamed Tejan-Kella described the Central Bank's visit as timely and appropriate, noting that it came at the moment when the Agency is transforming from its project phase into a full fledged business entity. Tejan-Kella made mention of the spread and concentration of the Community Banks (CBs) and Financial Services Associations (FSAs) country-wide. 51 FSAs and 17 CBs, catering for the once deprived sections of the society, especially the smallholder farmers. The Programme Coordinator commended the Central Bank for its supports to the first phase of the project, which he said gave rise to the current phase and called the Governor and team to continue what they have started for better supervision and confidence building.

In his response, the Governor of the Central Bank of Sierra Leone, Dr. Momodu Kargbo expressed delight over the activities and operations of the Apex Bank including the Financial Services Associations and Community Banks.

Dr. Kargbo commended the efforts of both the NPCU and the Apex Bank Management. He described the visit as deliberate, a showcase of his developmental orientation. The Governor spoke on the need for a well motivated workforce, calling on the institution to empower its staff professionally. Dr. Kargbo ended with a plea against any form of Financial indiscipline, which would jeopardize the gains of the institutions over the years. Forming parts of the visit were courtesy calls and meetings with staff, Board members and local /traditional authorities including Paramount chiefs of both the Baoma Financial Services Associations in the Bo District and that of the Taiama Community Bank in the Moyamba districts respectively. It could be noted that the rural finance agenda is championed by not only MAFFS, but the Ministry of Finance and Economic Development (MOFED) and the Bank of Sierra Leone (BOSL). The expansion of the rural financial network through the rapid growth and establishment of Financial Services Associations (FSAs) and Community Banks (CBs) is evidence of this national commitment.

Potential for Stable Food Production and Self-Sufficiency in Rice

Stable food production with particular focus on crops and rice self-sufficiency has occupied the mind of the Sierra Leone government for decades. This is amply reflected in the policies, strategies, and plans implemented over the years. The primary reason is that food is a fundamental human right embodied in United Nations Charter of 1948, and lately (2000), articulated in the Millennium Development Goals (MDGs). Food is life, and no person, community or country should be allowed to go hungry. However, for such a noble goal to be attained, factors that combine to enhance the development and growth of the agriculture sector must be sufficiently addressed, and appropriate mechanisms put in place to promote it (Sheriff *et al.* 2009). Rice will be discussed first, followed by other crops.

Rice is by far the most important crop not just as staple, but in terms of huge expenditure on its import and value in trade. The current estimated total production stands at 888,000 MT or a little over 91% of national requirement (Agricultural Statistical Bulletin 2010). In order to offset the shortfall, and to ensure export on a sustained basis, production has to significantly increase. Providing appropriate and timely input supply, and promoting effective research – extension delivery through farmer training in improved cultural practices including integrated production and pest management (IPPM) will bring about significant yield increases and total production (Sheriff *et al.* 2009). Due to economies of scale, and characteristic labour shortage in the vast low lands, farm mechanization using tractors, power tillers, harvesters, threshers, winnowers, and hullers is imperative. This will also significantly reduce the labour drudgery especially on women who produce over 60% of the food.

It is acknowledged, however, that farm mechanization and large-scale irrigation schemes the world over are capital-intensive undertakings, and must

For these groups, which comprise 68% of the population, subsistence remains extremely precarious. Infant mortality rate is 147 per 1,000, life expectancy is 42 years, only 42% of the population has access to safe drinking water, and adult illiteracy is 79%, with women registering over 90% illiteracy (MICs 2005).

In 2003, FAO approved the Special Programme for Food Security (SPFS) for Sierra Leone. The programme seeks to improve food security and livelihoods among rural poor through farmer participation and use of improved production technologies that will remove the bottlenecks to increased production. During the implementation of the programme, greater importance was assigned to small-scale/rural families as beneficiaries of the programme.

The implementation strategies included organizing the farmers into small groups at chiefdom, section, or village levels for the establishment of their own mechanism for the reception and provision of resources, training of participating farmers (men, women and youths), and generation of appropriate technologies.

Higher and volatile food prices and poor rural people



Investing in Rural People

Food price hikes and food security

Food price trends have a major impact on food security, at both household and country levels. Many of the world's poorest people spend more than half their income on food. Price hikes for cereals and other staples can force them to cut back on the quantity or quality of their food. This may result in food insecurity and malnutrition, with tragic implications in both the short and long term. Undernourishment increases disease and mortality, lowers productivity and can have severe lifelong effects, particularly for children. Price spikes can also limit the ability of poor households to meet important non-food expenses, such as education and health care. When they occur globally, price hikes can affect low-income, food importing countries, putting pressure on their limited financial resources. Higher food prices have a particularly negative impact on food security when prices spike suddenly or reach extremely high levels.

On the other hand, higher prices are an important signal for producers. And this group includes half the world's undernourished people, who are small farmers, livestock producers and artisanal fishers. For these people, higher prices present both an opportunity and a threat. They can be an incentive to produce more for the market, making more food available while also improving access to it, as poor farmers' incomes increase. But higher prices are also a threat, because many poor farmers are net food buyers – meaning they spend more on food than they make by selling produce, and because many of them face obstacles that prevent them from producing more or getting more of their produce to market.

Price hikes can have mixed effects in terms of food security. According to the World Bank, the 2010-2011 food price spike has pushed a net estimated 44 million people into poverty. For some 24 million food producers, it has been a ticket out of poverty – albeit possibly a short-term one. But their numbers were swamped by the 68 million that have fallen below the extreme poverty line.

Why prices have been rising in recent years

Prices for cereals and other major food commodities have experienced two global spikes recently – one in 2007-2008, the other in 2010-2011. And they have generally remained higher than during the period between the 1980s and the early years of this century. Prices have also experienced hikes or remained at higher levels in many developing countries. The reasons for these different though inter-related phenomena are not identical. However, a growing imbalance

between demand for and supply of food – notably cereals and livestock products – underlies higher prices in both domestic and global markets. While demand for cereals (whether for human consumption, livestock production or feedstock) has been rising steadily – both globally and in most developing and emerging countries – in recent years, supply has not kept up. In developing countries, the key factors behind inadequate supply are low and stagnating productivity in agriculture, a deteriorating natural resource base, and weak rural and agricultural infrastructure and markets. At the global level, other factors have contributed to the recent price spikes, including supply shocks in some major exporters, trade restrictions, increasing trade and speculation in financial instruments (notably derivatives) based on food commodities, and rising oil prices.

In domestic markets, at times prices have risen as a result of the gradual increase in the supply/demand imbalance, and at other times as a result of price transmission from global markets. Rising oil prices have also put upward pressure on domestic prices in many countries, affecting both agrochemical and transportation costs.

The price volatility rollercoaster

Price spikes like those we have witnessed in recent years are not just part of a trend of higher prices. They are also part of a different phenomenon – price volatility – a combination of abnormal unpredictability of prices and of unusually large variations, particularly upward. Although experts differ in their assessment of the magnitude of recent global price volatility, they agree that global prices have become more volatile and that volatility will persist in the coming years.

Some of the reasons for growing global price volatility are the same as those causing higher prices both globally and domestically – they essentially have to do with supply/demand imbalances. While demand is growing more or less steadily, inadequate supply and the limited volume of food traded on global markets means that prices in these markets are very sensitive to supply shocks. Such shocks can be caused by local environmental and climatic factors, the sudden imposition of trade restrictions, financial speculation in food commodities, sudden increases in oil prices, or currency exchange fluctuations. Like price increases, price volatility can be transmitted from global to domestic markets and vice versa.

While higher food prices can be an opportunity for small farmers, price volatility hurts both consumers and producers. The extreme range of price variation – especially upward – hurts net food consumers. Moreover, the unpredictability of prices inhibits planning, makes

What is cooked in earth that's nice
Cooked in wood will fetch good price
Turns into sweetmeats if cooked thrice?

The answer is rice. Rice can be cooked in earthenware pots, in bamboo tubes, and can be made into sweetmeats in special preparations cooked up to three times.

Rice is cooked all over the world, in small huts as well as in luxury hotels. Rice is the staple diet of more than two billion people in Asia and many millions more in Africa and Latin America. Every third person on earth eats rice every day in one form or another. More than one billion farmers make their living from rice and though there are over a hundred countries where rice is grown, more than 90 per cent of the world's rice is grown and consumed in Asia alone.

Rice is the world's most versatile crop. In Nepal and Bhutan it grows as high as 2,750 metres above sea-level; in Kerala it grows as low as 3 metres below sea-level.

There are numerous stories about the origins of rice. In Japan it is believed that the Sun-Goddess Amaterasu-Omi-Kami was given grains of rice by a swan flying in heaven. (You see, even in heaven they couldn't live without agriculture.) The Sun-Goddess sowed the grain, which sprouted, blossomed and bore grain. Presenting the first fruits of this heavenly harvest to Prince Ninigi, the Goddess ordered, "Take this grain to the Land of Eight Great Islands." She meant Japan.

The most heart-warming story comes from the Philippines. One day, a young girl Agmay was sitting dangling her feet in a mountain spring, looking very sad. Her family were bonded slaves of a cruel master who made them work like animals. Her mother was dead. How long would her father be able to bear this misery? Tears welled in her eyes. Just then she saw a golden sheaf flowing down the stream. She picked it up and saw that it was laden with golden grain. She buried the grain in the mud near the stream. The grain sprouted and grew; and when it ripened the ears bore similar golden grains. Agmay sowed these grains too. Her father helped her. After a few years of planting and harvesting there was enough grain to fill their hut. Agmay's father was able to pay all his debts and became a free man.

In Along village in Arunachal Pradesh a tribal woman is credited with being the first rice farmer. Her figure is painted in a temple there.

However, according to a Thai legend, Lord Vishnu asked the Rain-God Indra to teach rice farming to the people.

Like other plants, rice originally grew wild. Its history goes back 130 million years, when the seven continents were joined together. Gradually the continents started drifting apart. Except in ice-covered polar regions, rice has been growing everywhere.

The rice which is grown today is descended from a variety found in the northern Himalaya. From here it spread to the rest of India and throughout the world, barring Africa.

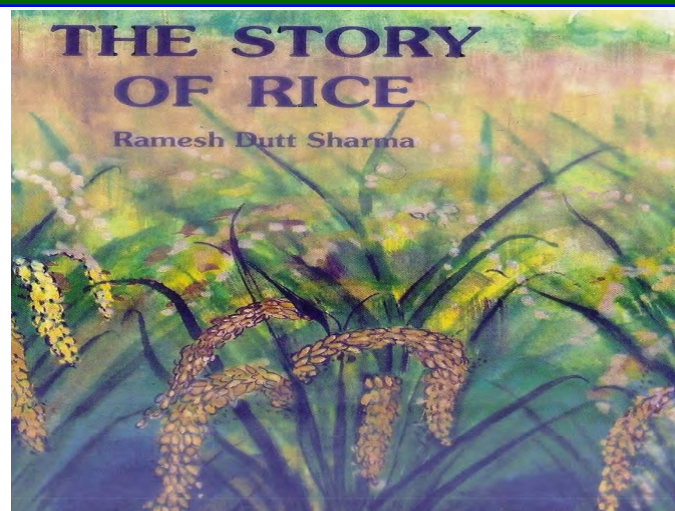
Rice has been found in archaeological sites in India, China, Japan, Korea, Thailand and several other countries. In India archaeologists have found charred grains of rice in more than thirty-seven sites. Apart from Mohenjodaro (now in Pakistan), in Lothal and Rangpur in Gujarat too, rice dating back to 2,000 bc has been found. Excavations in Uttar Pradesh, Bihar, Madhya Pradesh and Bengal reveal the importance of rice in Indian culture.

The species of rice grown in India is known as *Oryza indica*.

The word for a particular plant in different languages also gives us clues as to where it has travelled. The Latin word for rice, *oryza*, and the English "rice" are both derived from the Tamil word *arisi*. Arab traders took *arisi* with them and called it *al-riz* or *arroz* in Arabic. This became *arroz* in Spanish and *oriza* in Greek. In Italian it is called *riso*, in French *riz*, in German *reis*.

In Sanskrit, paddy is called *vrihi*. This became *vari* in Telugu. In Madagascar, on the east coast of Africa, rice is also called *vary* or *vare*. In Farsi, the language of Iran, the word *brinj* is derived from *vrihi*.

Kautilya's Sanskrit treatise the *Arthashastra* refers to a rice variety *shashtik*, which took sixty days to ripen. This same rice is now called "saathie". A story illustrates its importance.



Gautam Buddha had a disciple Nagarjuna who was a good chemist. One day he heard of a certain sage who applied a special paste to the soles of his feet and vanished into thin air. Nagarjuna became his student and tried to find out the ingredients which went into this paste. One day he prepared his own paste and



rubbed it on his feet. He too vanished. . . . but a few moments later fell flat on the ground. He again applied the paste. Again he vanished and again fell flat. Seeing him bruised and bloody, his guru questioned him. Nagarjuna confessed making the paste in secret and begged forgiveness. His guru smelt the paste and said, "Son, you forgot only one ingredient—the saathie rice paste."

Rice has also played an important part in Buddhist culture. Gautam Buddha's father's name was Shudhodana, which means Pure Rice. It is said that after his long meditation under a banyan tree, the Buddha attained enlightenment after he had eaten *kheer*, brought by a forest-dweller Sujata. Hand in hand with the spread of Buddhism to India's neighbours—Burma, Indonesia, Thailand, China, Japan and Korea—went rice culture. Thus rice was a gift of India.

Hindu mythology has it that Lord Krishna was so pleased with his childhood friend Sudama's gift of two handfuls of roasted rice that in return he gave him the Earth and the Heavens. If his queen, Rukmini, had not stopped him, he would have given Sudama the Cosmos as well.

(To be continued)

Agricultural Development Strategies and Policies of the Recent Past

The remaining sections will review the agricultural development policies and strategies of the past and lessons learned from the successes and failures of those interventions, the current policies and strategies being pursued, and the challenges ahead.

Even before the end of the 1991–2001 war, the government initiated a number of development policies and strategies with the object of attaining food self-sufficiency and food security. As a direct result, obligations regarding the right to adequate food at the international and national level were undertaken with a strong political commitment for its realization for all. However, the modalities to coordinate the necessary efforts, to ensure accountability, transparency, non-discrimination and empowerment, and to monitor progress were not effective.

The primary objectives of the government's postwar agricultural strategy are to promote sustained growth of agricultural output, food security and the reduction of poverty. The strategy comprises development programmes, respectively, for rice, other food crops, export crops, livestock and fisheries. The objective is to expand and diversify national food production, generate employment and export revenues. In support of these programmes, actions are needed in six thematic areas: (i) maximizing food production to assure food

security for the population and to exploit the country's comparative advantage in producing food for import substitution and for export in the region; (ii) institutional reforms and technology development; (iii) availability of adequate and sustainable infrastructure; (iv) diversification of crop production, expanding exports of traditional products to the extent that they can be competitive in the world market, while improving quality and diversifying the export base; (v) effective natural resource management; and (vi) creating opportunities for rural employment to reduce the income gap between urban and rural areas and to stem the rural exodus.

The State of the Agricultural Sector Before the War

'The general deterioration of the macro-economy has caused serious problems for the agricultural sector. Major problems, *inter alia*, include high inflation, shortages of foreign exchange and strongly negative real interest rates which have contributed to adverse conditions in the terms of trade for agricultural products, low investment – both public and private – in the sector, a serious shortage of imported inputs, reduced consumer purchasing power, unattractive producer prices, and low farm incomes. The development of small-scale, agriculture-based industries to provide the backward and forward linkages needed to foster and sustain the growth of agricultural output has been stifled, with undesirable consequences for the growth of the entire rural economy. The result is a vicious circle in which the unfavourable macro-economic environment has depressed agricultural sector growth, which has in turn led to a further worsening of the macro-economic situation.'

MAFF/FAO 1992

Climate change:

building smallholder resilience



Smallholder farmers are the backbone of the rural economy – but they are bearing the brunt of climate change. Worldwide, there are 500 million smallholder farms supporting some 2 billion people. These farmers inhabit some of the most at-risk landscapes, including hillsides, deserts and floodplains. Climate change multiplies the threats facing smallholders, endangering the natural assets they depend on and accelerating environmental degradation.

Over the centuries, smallholders have learned to adjust to environmental change and climate variability. But the current speed and intensity of climate change are outpacing their capacity to adapt. Crop failures and livestock deaths are causing economic losses, raising food prices and undermining food security with ever-greater frequency, especially in parts of sub-Saharan Africa. At the same time, demand for food is increasing as populations grow and dietary habits change.

Agriculture, along with forestry, can play a key role in tackling climate change. Improving land management and farming practices and planting forests can help lower greenhouse gas emissions.

Poor farmers are custodians of natural resources, often managing vast areas of land and forest. Targeted assistance can enhance this crucial role. IFAD is committed to scaling up investments in sustainable agricultural intensification, focusing on risk and resilience, promoting value chains that drive 'green growth', supporting better governance and policies on natural assets, and promoting knowledge-intensive and community-led responses.

A crucial feature of IFAD's approach to building poor rural people's resilience to climate change is soliciting their views during the planning process. With their participation, climate change risks can be reduced and progress towards a world without poverty can be accelerated.

IFAD's climate change strategy

Environmental threats such as climate change are inseparable from IFAD's mission to enable poor rural people to overcome poverty. Climate change is multiplying their existing risks and creating new ones – while possibly opening up some new opportunities. In 2010, IFAD's Executive Board approved a climate change strategy to ensure a systematic focus on the implications of climate change for our activities at the country level. The strategy aims to maximize IFAD's impact on rural poverty in a changing climate. It has three purposes:

- To support innovative approaches to helping smallholder producers build their resilience to climate change
- To enable smallholder farmers to take advantage of available mitigation incentives and funding
- To inform a more cogent dialogue on climate change, rural development, agriculture and food security

FACTS

- In rural areas of developing countries, nearly 2 billion people live on less than US\$2 a day.
- Around 1 billion people go hungry every day.
- By 2050 food production needs to increase by 70 per cent, but the total arable area in developing countries may increase by no more than 12 per cent, mostly in sub-Saharan Africa and Latin America.
- In Africa alone, climate change will expose 75 million to 250 million more people to increased water stress by 2020.
- Agriculture accounts for 14 per cent of greenhouse gas emissions, and forestry for 18 per cent.
- There are around 500 million smallholder farms in the world. Smallholders provide up to 80 per cent of food consumed in Asia and sub-Saharan Africa.

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LINKS

IFAD and climate change
www.ifad.org/climate/
United Nations Framework Convention on Climate Change
www.unfccc.int
Intergovernmental Panel on Climate Change
www.ipcc.ch
COP 17
www.cop17durban.com
World Bank 2010 World Development Report: Development and Climate Change
www.worldbank.org/wdr2010



IFAD is an international financial institution and a specialized United Nations agency dedicated to eradicating poverty and hunger in rural areas of developing countries.

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What climate change means for rural development

Climate change has five key implications for rural development programmes:

The risks created by climate change require urgent attention.

Investing now in adaptation and mitigation measures will be far less costly than in the future.

Climate change magnifies traditional risks. Farmers can no longer rely on historical averages of factors such as rainfall and temperature, because climate change is increasing climate variability, the range of extremes and the scale of volatility.

Beyond traditional risks, smallholders will face new threats, such as sea-level rise and the impact of melting glaciers on water supply. Mechanisms for emission rewards and carbon-financing schemes are complex, and efforts will be needed to ensure that poor people are not shut out of such benefits through social exclusion or limitations on land-use rights.

Uncertainty over climate impacts is no reason for inaction.

New models can help reduce uncertainty in local assessments of vulnerability to climate change. To deal with residual uncertainties, it is important to take actions that offer significant development benefits under a range of climate scenarios – also called 'no-regret' options. These measures aid communities both in building resilience to a range of potential shocks and in adjusting to longer-term climatic trends where these are clear. Approaches that help maintain agricultural production with or without climate change have obvious benefits. These include promoting crop diversity and biodiversity, using integrated farming and agroforestry systems, and improving post-harvest management.

There is an enormous opportunity – and need – to scale up 'multiple benefit' approaches to intensifying agriculture.

Sustainable management of land and watersheds, integrated pest management and organic agriculture are among the 'multiple benefit' approaches highlighted in IFAD's *Rural Poverty Report 2011*. These approaches increase yields, incomes, food security and climate resilience, and they protect biodiversity and reduce greenhouse gas emissions, often simultaneously. There is no standard approach – strategies must be adapted to local circumstances. The key is building resilience by maintaining healthy and diverse landscapes, diverse production systems and healthy soil that can retain moisture and nutrients.

Responding to climate change also means renewing efforts to tackle wider development challenges.

Many of the programmes we support are designed to increase smallholders' resilience to shocks, which are often related to weather. A coherent response to climate change requires continued emphasis on good development practices. This includes involving communities in managing natural resources, helping people acquire secure tenure to land, improving access to credit and markets, and strengthening the quality of governance. Recognizing the relevance of farmers' traditional and indigenous knowledge is crucial, as is understanding and enabling women's knowledge and roles in responding to climate change.

Smallholder farmers must benefit more from climate finance.

Estimates of the annual cost of climate change adaptation in developing world agriculture range from US\$7 billion to US\$12 billion per year. But smallholders face significant risks and barriers that limit their access to climate finance, including their insecure land tenure and the high cost of implementing projects.

Climate change is making smallholder development more expensive. Climate-resilient programmes typically have higher up-front costs, including for infrastructure, skills development for farmers and strengthening of institutions.

International climate finance is often linked to particular global policy goals, such as emissions mitigation, adaptation or efficient energy. In IFAD's experience these issues converge on the ground, and they must be treated holistically if projects are to succeed.