# Preparing rural communities to cope with climate change through South-South and Triangular Cooperation



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Within the broader context of implementing the Brasilia Declaration and Action Agenda on South-South and Triangular Cooperation, on 14 March 2018, the International Fund for Agricultural Development and the Government of Pakistan organized a one-day seminar entitled "Preparing Rural Communities to Cope with Climate Change through South-South and Triangular Cooperation". The main objective was to share innovative solutions, experiences and knowledge on climate change adaptation and mitigation practices relevant to rural communities and smallholders. The event featured high-level speakers from both Pakistan and abroad, who engaged in discussions about multilateral initiatives to mitigate climate change, national and global policy engagement, the role of national and international research institutions, and the role of international cooperation. The event was also an opportunity to discuss in depth three specific areas in the context of climate change adaptation in Pakistan:

- Water management and water security
- Food security
- Access to markets and value-chain development

The seminar was an opportunity for experts from both Pakistan and the broader development community to contribute to learning on climate change-related solutions that could be embedded in national development frameworks, policies and strategies, as well as financing options. Below are the main outcomes of the discussions of the seminar.

## Climate change is a global concern that must be tackled at the international and national levels

Pakistan's contribution to the emission of greenhouse gases is very limited compared to other countries in the region and beyond, contributing less than 1 per cent of the global output. Yet at the same time, Pakistan is one of the countries most vulnerable to climate-related disasters – including droughts and floods, which have ravaged the country in recent years. As in other countries and regions, the communities most affected by climate change remain poor, marginalized and rural. Adaptation is no longer an option; it is an imperative that must be promoted at all levels to increase the resilience of rural smallholders.

Building resilience to climate change requires working with complex systems. As such, single-option interventions are limited in their effectiveness, and in some cases can exacerbate the effects of climate change and maladaptation. Therefore, effective climate change adaptation and mitigation measures need to be promoted through harmonized cooperation and concerted efforts. Progress has been made over the years, with important milestones such as the Paris Climate Agreement and the adoption of the Sustainable Development Goals, supported by:

• Intergovernmental organizations, which play a key role in helping countries develop effective national policies to deal with the impacts of climate change. Within international organizations, international financial institutions (IFIs) such as IFAD need to boost their assistance to developing countries by facilitating access to international



climate finance. Moreover, IFIs should work with communities to enhance their resilience by providing alternative livelihood options – for instance, by investing in renewable energies and promoting low-carbon, climate-resilient development.

South-South and Triangular Cooperation (SSTC), which offers developing countries a
vehicle to cooperate and share technologies and experiences for effective climate-change
adaptation, by promoting peer-to-peer learning and scaling up proven best practices
from across the globe.

# National policies are insufficient; ownership of country-level strategies to combat climate change must be rooted in rural communities

While effective global and national policies are essential in the fight against climate change, the key to significant impact and results lies in getting rural communities involved and building their ownership. Rural communities are not only some of the most vulnerable to climate-related disasters, but are also some of the main contributors to climate change. In fact, globally, agriculture is the second-largest contributor to climate change – behind energy and ahead of transportation – while unsustainable farming and irrigation practices lead to land degradation and water insecurity.

Highlighting the economic benefits of climate change adaptation for rural communities is key to getting them involved. The climate debate often overlooks how adaptation can sometimes result in economic and financial opportunities for smallholder farmers. Taking



into account long-term climatic patterns and their impact on the markets, farmers can find opportunities to diversify their production and spread climate risk across different sources of income, or sustainably intensify harvests in a more resilient natural environment. The economic benefits of adaptation are many: sustained or increased agricultural production, higher household incomes, enhanced environmental services, greater protection of the agricultural asset base and less vulnerability to extreme weather events.

Global climate change is primarily caused by greenhouse gas (GHG) emissions that result in warming of the atmosphere. The livestock sector contributes 14.5 per cent of global emissions. Promoting innovative technologies and techniques, such as combining pasture management with improved breeds, watering systems and supplementary feeding (i.e. providing livestock with nutrients they normally lack) will not only increase the productivity of farmers, but also provide an opportunity to mitigate the effects of climate change by decreasing GHG emissions. Effective water management is also very important to climate change mitigation, as many agricultural practices aiming to reduce GHG emissions are water-intensive (e.g. high-productivity farms). Coupled with the fact that climate change can put additional stress on the availability of water, sustainable water-management practices are crucial to adapting to and mitigating climate change. An example of improved water-management practices has been studied in Punjab, where rice production utilizes almost 24 million-acre feet (MAF) of water under conventional irrigation systems, while the installation of high-efficiency irrigation systems could save up to 5-8 MAF of water.



At the global level, there is a strong economic case to invest in agriculture for better food security and rural livelihoods. For example, the world's largest programme for smallholder farmers' adaptation, IFAD's Adaptation for Smallholder Agriculture Programme (ASAP), does not only focus on increasing the adaptive capacity of smallholders, but also attempts to advance an effort to identify and quantify the economic and financial benefits that come from investments in climate-smart agriculture. Economic analysis shows that the 32 country-level ASAP investments approved since 2010 will generate and redistribute net benefits worth US\$0.44-1.63 per dollar invested, over a period of 20 years, to smallholder farmers and other project beneficiaries. Similarly, widespread adoption of improved climate-resilient practices in the production of major agricultural staples will provide economic pay-offs and improve the future food security of rural communities under changing climate conditions.

### The role of effective value chain development and the private sector cannot be overlooked

Successful value chain development allows farmers to better access their markets and improve linkages with local and national institutions. Climate-smart agriculture has the potential to offer new opportunities to improve some agricultural value chains – for example, by opening up higher altitude areas for farming, or enabling new types of crops to be grown in otherwise unfavourable climate conditions. To make value chains more climate-resilient, some key aspects to be considered are diversification, climate proofing, green processing technologies, loss and



waste management, renewable energy solutions and water conservation. Additionally, value chains can be made more resilient to climate change by improving access to technologies and information. This can be achieved through improving early warning systems, information sharing and social mobilization, as well as raising awareness and removing asymmetries in access to market information.

Private-sector actors other than farmers can play significant roles in promoting climate change mitigation and adaptation throughout the agricultural value chain by providing finance, knowledge, technologies and market incentives. Public agencies and policies can enable positive action among farmers and other private-sector entities through regulation and standards, knowledge management and extension, risk-management institutions, finance mechanisms and stable resource rights for smallholder farmers, among others.

In recent years, public-private partnerships have allowed the public and private sectors to join forces in solving bottlenecks for value chain development. At the same time, there is a growing recognition that smallholder agriculture will have to play a much greater role in the agricultural sector in providing the supply response needed to ensure global food security. IFAD believes that there is scope to more systematically include innovative private-sector approaches in its portfolio through its Public-Private-Producer Partnerships (4Ps) approach. The main objective of the 4Ps approach is to improve the livelihoods of smallholders through leveraging private-sector investments and know-how on access to markets.

The 4Ps approach is used as a "pull" mechanism to finance business plans submitted by private companies and farmers in which both parties propose to enter into a partnership



agreement to take risks, invest and share the benefits. For these 4Ps business plans, IFAD financing (via local value chain programmes) focuses on the delivery of public or semi-public goods that are necessary to fill the financing gap of viable business plans and would not otherwise be delivered by the private sector. Using public resources is justified to address a "market failure" where the perceived risks and transaction costs of working with small producers are preventing private companies from starting market-based business relationships. A robust analysis of climate, price and other major risks, along with mitigation measures, is essential at the 4Ps design stage, as climate risks affecting value chains need to be properly addressed.

### Greater investments in research and development are needed

Moving forward will require greater investments in research and development across different areas, such as greater use of information and communication technologies (ICTs), development and proliferation of early warning systems, availability of data and knowledge banks (and removal of asymmetries of information), and promoting the use of available high-yielding and drought-resistant seed varieties.

Increased policy engagement efforts are also needed, in combination with increased R&D, in order to create an enabling environment that recognizes and supports an integrated approach to scale up climate-mitigation efforts. Engagement with policymakers at the global, national and local level is necessary to ensure support to projects and initiatives that deliver both climate-mitigating and overall poverty-alleviation benefits.



International Fund for Agricultural Development Via Paolo di Dono, 44 - 00142 Rome, Italy Tel: +39 06 54591 - Fax: +39 06 5043463 Email: ifad@ifad.org www.ifad.org

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### CONTACT

Ashwani K. Muthoo

Director

Global Engagement and Multilateral Relations Division External Relations and Governance Department, IFAD Via Paolo di Dono 44, 00142 Rome, Italy

Tel: +39 06 5459 2053 Mobile: +39 335 8468536 Email: a.muthoo@ifad.org

www.ifad.org

