

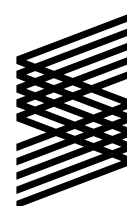


# Unlocking climate-resilient economic development in drylands: pathways to a resilient world

Submission to the  
Talanoa Dialogue

**October 2018**

Eva Ludi, Erin Roberts, Rebecca Nadin, Margherita Calderone, Rajeshree Sisodia, Guy Jobbins and Nathalie Nathe



**PRISE**

Pathways to resilience  
in semi-arid economies

Research for climate-resilient futures

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The Overseas Development Institute (ODI) is pleased to make this submission to the Talanoa Dialogue on behalf of Pathways to Resilience in Semi-arid Economies (PRISE). The PRISE consortium comprises of the ODI (lead), UK; the Grantham Research Institute for Climate Change and the Environment, UK; Innovations Environnement Développement en Afrique, Senegal; and the Sustainable Development Policy Institute, Pakistan; with country research partners the Regional Environmental Centre for Central Asia, Tajikistan; Kenya Markets Trust, Kenya; the University of Ouagadougou, Burkina Faso; and the University of Central Asia, Kyrgyzstan. PRISE is a consortium under the Collaborative Adaptation Research Initiative in Africa and Asia (CARIAA), with financial support from the UK Government's Department for International Development (DfID) and the International Development Research Centre (IDRC), Canada. The views expressed in this work are those of the creators and do not necessarily represent those of DfID and IDRC or its Board of Governors.

This submission is the product of a collective effort based on the results of five years of robust, evidence-based and stakeholder-driven research carried out under the consortium for Pathways to Resilience in Semi-Arid Economies (PRISE) in Senegal, Burkina Faso, Kenya, Tanzania, Ethiopia, Pakistan, Tajikistan and Kyrgyzstan. The empirical basis for this submission is provided by research from across PRISE, produced by the Grantham Research Institute on Climate Change and the Environment at the London School of Economics and Political Science (GRI); Innovation Environnement Développement (IED) en Afrique, Kenya Markets Trust (KMT), Mountain Societies Research Institute (MSRI), Overseas Development Institute (ODI), Sustainable Development Policy Institute (SDPI), Regional Environment Centre for Central Asia (CAREC) and the University of Ouagadougou (UO).

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# Key messages

- In a resilient world, marginalised areas like drylands<sup>1</sup> will no longer be overlooked but instead will be economically, socially and politically integrated with the rest of the country, and home to thriving economic activity that is inclusive, fair, and climate resilient.
- Investments in drylands can drive economic development. The starting point for this transformation is first understanding what marginal areas have to offer and identifying entry points for investment and action.
- Targeted investment by both private and public sectors, more robust institutional frameworks and adaptation actions that proactively support climate-resilient economic development (CRED) can enhance this adaptive capacity. However, to be sustainable and inclusive, adaptation strategies should be socially acceptable as well as economically viable and climate resilient.
- Through an integrated approach to development and adaptation planning, ministries and sectors work together at all levels – from the local to the global – to understand the drivers of marginalisation and identify and capitalise on opportunities. Rather than through project-based activities, adaptation and development are carried out through a holistic and integrated approach.
- Global and regional adaptation planning could provide entry points for supporting adaptation options that deliver CRED in marginalised areas. International cooperation on adaptation and climate-resilient development should go beyond the United Nations Framework Convention on Climate Change (UNFCCC) to other global economic and trade processes and agreements.
- A territorial approach to adaptation that transcends national borders and administrative boundaries will open up opportunities for transboundary adaptation and support CRED at both regional and national levels.
- By targeting investments in key sectors and supporting the integration of Sustainable Development Goals (SDGs) with climate action and other development policies and plans – including National Adaptation Plans (NAPs) early and national development plans – governments, development partners and private sector actors can support CRED in drylands.
- Drylands also need to be better connected to both national and global markets to ensure CRED and increase any income that remains in drylands, which can be spent on food, nutrition, health and education and reinvested back into the economy.
- There is a strong business case for the private sector to be actively engaged in creating climate-resilient supply chains, which could be further incentivised through conducive public policy. There are opportunities to ensure that value chains are climate resilient and contribute to increased productivity and promote diversification. To capitalise on these opportunities, producers in particular need better climate information services, knowledge about adaptation options, and access to financial services. Both early warning systems and financial services should be targeted to the specific contexts of drylands could significantly support the resilience of dryland economies.
- Mobility can be an important adaptation strategy in drylands. Policy-makers can help to ensure mobility builds resilience to climate change by integrating planned migration into development and adaptation plans – including into NAPs. By carrying out adaptation and development planning through a holistic and integrated approach (rather than through project-based activities), governments, development partners and the private sector can help to develop a collective vision of a resilient world, one in which vulnerable communities and groups, including women and youth, are actively engaged in creating.

<sup>1</sup> According to the [Millennium Ecosystem Assessment \(2005\)](#), the term drylands includes hyper-arid, arid, semi-arid and dry sub-humid zones. As such, where the term drylands is used in this brief it includes – but is not synonymous with – semi-arid lands.

## About PRISE

Pathways to Resilience in Semi-arid Economies ([PRISE](#)) is a five-year multi-country research project that looks at the entry points for strengthening economic development in semi-arid regions that are resilient to climate change, inclusive and equitable. Through case studies in Burkina Faso, Kenya, Pakistan, Senegal and Tajikistan, PRISE has increased the understanding of both the challenges – but also the opportunities – to enhancing sustainable CRED in semi-arid regions. PRISE defines CRED as:

‘The full range of evolutions undertaken by the economy and society towards sustainable development. This is characterised by a shift towards sectors that boost inclusive and adaptable growth and a gain of productivity within sectors that enables all aspects of the economic system, i.e. the means of producing, exchanging and distributing goods and services, to avoid, absorb and adapt to climate impacts. This increase in growth and productivity must be attained without putting extensive pressure on natural assets and without generating negative environmental spill overs that cannot be internalised. All in society must share the benefits of this growth and productivity and have access to opportunities.’

As part of its lead role in the consortium, the Overseas Development Institute (ODI) has developed a tool for identifying climate risks, the adaptation strategies needed to address them, and opportunities to engage the private sector in sustainable development in a way that is equitable and climate resilient. This Value Chain Analysis for Resilience in Drylands ([VC-ARID](#)) methodology has been used to look at opportunities for ensuring climate-resilient supply chains in both the livestock and cotton sectors.

For the past five years, PRISE has been undertaking research in drylands in Burkina Faso, Kenya, Pakistan, Senegal and Tajikistan. PRISE is comprised of seven projects, each of which focuses on a different challenge, but all of which work with policy- and decision-makers in the private sector, governments and civil society in the countries in which PRISE works, to increase the understanding of pathways to enable CRED over the coming decades. The starting point for PRISE is developing an evidence base to support decision-making in drylands to ensure CRED and enhance adaptation. This briefing will draw on PRISE research to describe where we are, where we want to get to and how we are going to get there – in the context of enhancing adaptation and facilitating CRED in drylands.



# Introduction

Alongside the global temperature goals of limiting global average warming to well below 2°C, and to make concerted efforts to limit warming to below 1.5°C, the Paris Agreement aims to collectively enhance adaptation, build resilience to climate change, promote low carbon development, and ensure that finance flows are provided to support these efforts ([UNFCCC, 2015](#)). A global goal on adaptation to enhance adaptive capacity, strengthen resilience and reduce vulnerability to climate change was also established.

Since 2015, focus has shifted to implementation and 2018 is a landmark year for climate action. The Talanoa Dialogue provides a collaborative space to discuss how to increase mitigation ambition urgently to go further, faster, together. We know that the more mitigation we collectively do today, the less adaptation will be needed tomorrow. Adapting to an above 3°C world – the average global warming to which current emission reduction pledges translate<sup>2</sup> – will put an enormous burden on developing countries, resulting in significant residual losses and damages. Therefore, alongside discussions on increasing global mitigation ambition, the Talanoa Dialogue should also focus on enhancing adaptation and building resilience worldwide while supporting economic transformation that is climate resilient.

## Where are we?

Drylands are often characterised as remote, sparsely populated places with few economic opportunities. However according to the UN Convention to Combat Desertification, drylands cover 41% of the global landmass and are home to 2.1 billion people.<sup>3</sup> The agricultural and livestock sectors in drylands make significant contributions to national economies. In Kenya, livestock makes up 12% of GDP and employs over 50% of the workforce, while the cotton sector in both Pakistan and Burkina contribute 10% to GDP in each country ([Carabine & Simonet, 2018](#)) and employs 40% of the industrial labour force in Pakistan ([Carabine & Simonet, 2017](#)). However, high dependence on agriculture and livestock means the economies of drylands are highly exposed to the impacts of climate change, particularly extreme temperatures and high rainfall variability, making approaches to address climate change especially important (IPCC, 2014).

### Ensuring resilient value chains

Working along specific value chains of produce rooted in drylands, PRISE developed a Value Chain Analysis for Resilience in Drylands (VC-ARID) methodology and used the tool to analyse value chains in Burkina Faso (cotton), Kenya (beef), Pakistan (cotton) and Senegal (beef and cow's milk) ([Carabine & Simonet, 2017](#); [2018](#)). While the contexts and value chains differed, there were many common

<sup>2</sup> According to information provided by Climate Action Tracker, current emission reduction pledges, including those in nationally determined contributions (NDCs), if implemented, would lead to global warming of nearly 3.2°C. For more information see: <https://climateactiontracker.org/global/temperatures/>.

<sup>3</sup> For more information about drylands see the UN Convention on Desertification's website at: [http://www.un.org/en/events/desertification\\_decade/whynow.shtml](http://www.un.org/en/events/desertification_decade/whynow.shtml).



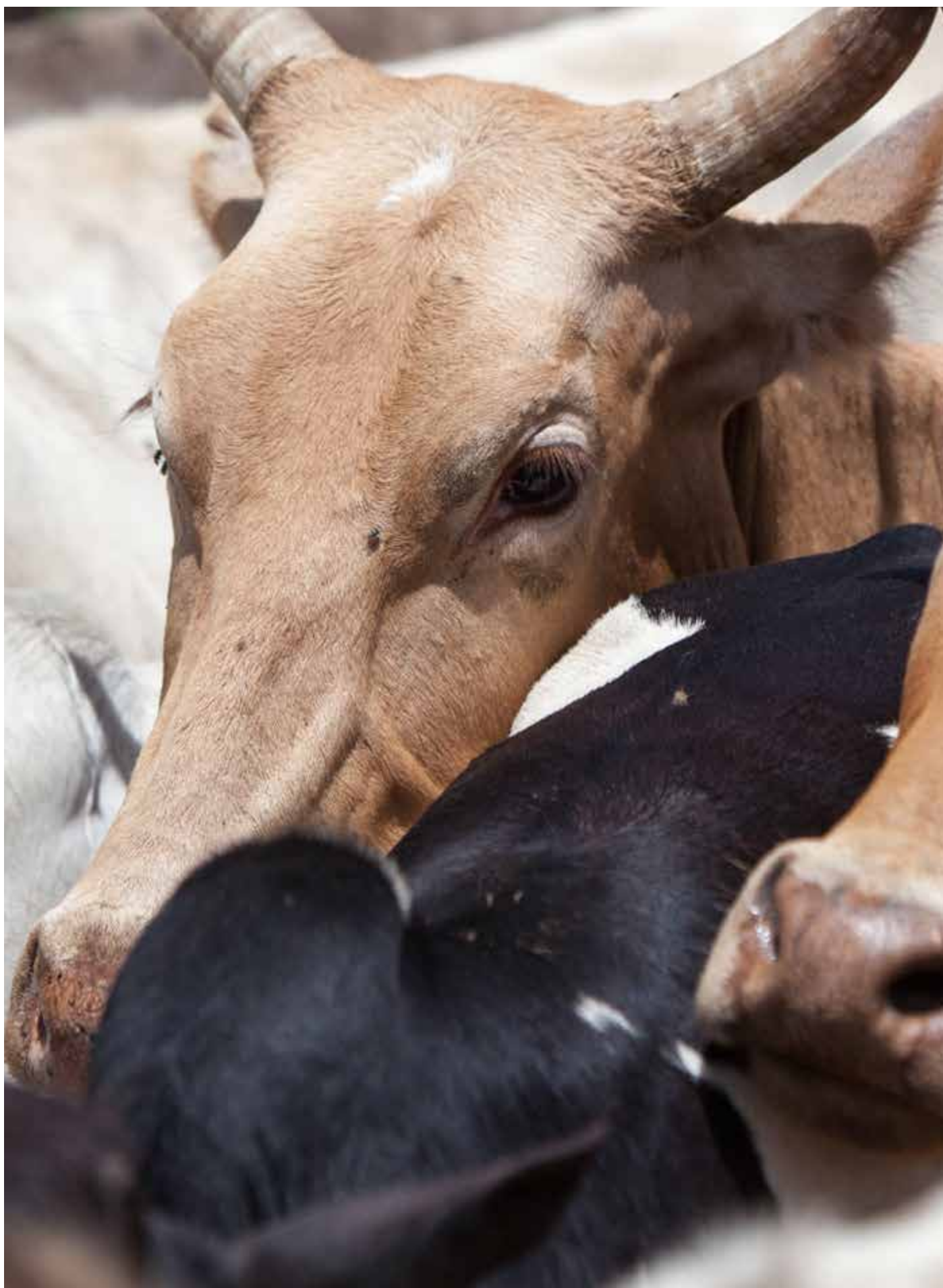
Take a look my friend, textile merchant in Pakistan, © [Benny Lin](#), [CC2.0](#).

challenges to building resilience, particularly for producers in each value chain. Producers – cotton farmers in Burkina Faso and Pakistan, or pastoralists in Kenya and Senegal – typically lack access to both financial services and markets. Producers are often expected to manage climate risks, but lack the capacity to do so. Research under PRISE found that a lack of climate information services, particularly early warning systems, can be a significant barrier to small and medium enterprises (SMEs) taking climate action. Thus, the provision of climate information services, government assistance, and targeted support for adaptation would in all likelihood significantly increase adaptive capacity (Crick et al., 2018).

### **Supporting migration as a resilience-building strategy**

Human mobility is an important characteristic of drylands and can be a successful adaptation strategy. PRISE therefore looked at the role of migration in building resilience to climate change in Pakistan, Senegal and Tajikistan. The research found that the lack of employment opportunities is a key driver of labour migration, which is a coping strategy used especially by the vulnerable and poor. Migrants are often young men who leave women behind with the additional burden of caring for children, managing the household, taking on additional income earning activities and/or managing the family farm ([Babagaliyeva et al., 2017](#); [Newborne & Gansaonré, 2017](#)). In Tajikistan, research found that children often leave school early to enter the work force or work on the family farm, and many young people choose to migrate rather than seek higher education ([Babagaliyeva et al., 2017](#)). In Pakistan, where 61% of the population live in rural areas and 45% depend on agriculture for their livelihoods ([Qaisrani et al., 2018](#)) rural-to-urban migration is an important adaptation strategy ([Qaisrani & Salik, 2018](#)). However, national climate change and development strategies often do not include migration and, rather than viewing human mobility as a resilience-building strategy, the focus tends to be on restricting rural-to-urban migration ([Qaisrani & Salik, 2018](#)).





Maasai cows, © [Matt Biddulph](#), [CC2.0](#).



# Where do we want to get to?

The aim of the global goals articulated in the Paris Agreement is to build a resilient world, one in which all countries are able to meet the pace of global warming with adaptation while ensuring growth, job creation and sustainably reducing poverty. In a resilient world, developing country economies will have the capacity to avoid, absorb and adapt to the impacts of climate change and all members of society will have access to the benefits and opportunities provided – a goal which mirrors the PRISE consortium approach to climate-resilient and equitable development ([Jobbins et al., 2016](#)). By framing adaptation as a global challenge, and a global opportunity, adaptation planning happens at all levels. Through international cooperation, countries work together to identify entry points for supporting sustainable development and adaptation in vulnerable communities, countries and regions.

## Seeing opportunities rather than challenges

In a resilient world, marginalised areas like drylands are no longer overlooked but are better integrated economically, socially and politically with the rest of the country and are home to thriving economic activity that is inclusive, fair, and climate resilient. Through an integrated approach to development and adaptation planning, ministries and sectors work together at all levels, from the local to the global, to understand the drivers of marginalisation and identify and capitalise on opportunities. Adaptation and development are carried out through a holistic and integrated approach rather than through one-off or project-based activities; a collective vision is developed. Vulnerable communities and groups, including women and youth, are actively engaged in envisioning and creating this resilient world. In a climate-resilient future, economies in semi-arid lands are vibrant and thriving, contribute to national and regional economic growth, and achieve the vision outlined in the 2030 Agenda for Sustainable Development. The private sector is actively engaged in creating climate-resilient value chains and is supported through public policies and institutional frameworks.

PRISE research points towards the benefits of an integrated approach to implementing SDGs. Such approaches will incorporate the unique characteristics of drylands including their geography, remoteness and the prevalence of human mobility and informality in the economies ([Ludi, 2018](#)). There are three ways to ensure CRED in drylands: making targeted investments in key sectors; integrating SDGs with climate action; and building better connections to both national and global markets – this in particular would increase any income remaining within the drylands, which could then be spent on food, nutrition, health, education and reinvested back into the economy ([Ludi, 2018](#)). CRED requires information about climate change, adaptation and resilience-building opportunities. Producers, especially those who do not own land, also require access to financial services ([Carabine & Simonet, 2018](#)). Migration should be seen as a potential resilience-building strategy and should be integrated into national policies and plans ([Qaisrani & Salik, 2018](#); [Babagaliyeva et al., 2017](#)). PRISE research in Senegal and Tajikistan found that remittances play an important role in development and building the resilience of households against the impacts of climate change ([Wade et al., 2018](#)). There are opportunities to harness and channel remittances to enhance adaptation and resilience-building efforts and support households.

# How are we going to get there?

While it is true that the temperatures in drylands will likely rise more than the global average and rainfall will become increasingly unpredictable (IPCC, 2014), there are significant opportunities for enhancing economic development that is climate resilient and inclusive by supporting the transformation of those sectors that are already important in marginal areas towards becoming more inclusive and climate resilient ([Jobbins et al., 2018](#)).

One way to drive this transformation that is needed to address climate challenge and enhance sustainable development is to shift the narrative around marginal areas. PRISE has shown that investments in marginal semi-arid areas can drive economic development. A starting point for this transformation is first understanding what marginal areas have to offer and identifying entry points for investment and action.

PRISE research identifies many entry points to support adaptation and CRED in semi-arid lands. These findings could also be applied to other marginalised areas, such as mountainous regions. Shifting the paradigm to see potential – rather than solely focusing on challenges – in marginal areas is key to the transformation that is needed to ensure a resilient future. Targeted investment and integrated approaches hold exciting potential when it comes to addressing climate change and creating economic development that is fair and equitable. The following are some of the recommendations from PRISE findings:

- **Integrated approach to adaptation and development planning:** Adaptation strategies are too often implemented through standalone projects that are dictated by the interests of donors and funders rather than the needs of developing countries. A vision for a resilient future should be co-developed by a range of stakeholders across the public and private sectors and implemented



What do you want? A Senegalese market, © [Jean-Paul Gaillard](#), [CC2.0](#).

through holistic strategies that cut across these sectors. While the importance of increasing inter-ministerial collaboration and inter-sectoral cooperation is well recognised, barriers still remain. By supporting an integrated approach to CRED, donors and development partners could help developing countries move beyond a “siloed” and project-based approach to addressing climate change and development, and to achieve the vision in the 2030 Agenda for Sustainable Development.

- **Engaging the private sector:** Climate change poses a threat to economic development, but it could also be an opportunity to transcend ‘business as usual’ to ensure CRED. There are opportunities to enhance CRED through diversification and innovation, and focusing on high value-added and labour-intensive sectors. These efforts can be supported by development-oriented policies, and the provision of both financial services and climate information services ([Carabine & Simonet, 2018](#)).
- **Integrating migration into climate change and development plans:** Migrant households tend to have more financial resources, more diversified household assets, a stronger social network and better access to information ([Qaisrani & Salik, 2018](#)). Remittances and financial transfers can also be a source of resilience and investment in drylands ([Gannon et al., 2018](#)). Yet, migration as an adaptation strategy is often not incorporated into climate change nor development policies and plans. To ensure migration is a positive adaptation and a resilience-building strategy, human mobility should be integrated into nationally determined contributions (NDCs), national adaptation, development and disaster management processes ([Opitz Stapleton et al., 2017](#); Wade et al., 2018). Support to migrants should be prioritised to ensure policies are in place to maximise resilience for both migrants and their families who they leave behind. In addition, migration to secondary cities could be encouraged to reduce pressure on overcrowded cities ([Qaisrani & Salik, 2018](#)).
- **Increasing access to climate information and financial services:** Access to climate information services and information about potential adaptation strategies along with access to financial services was found to be a key determinant in whether or not actors could implement adaptation strategies. There is a significant gap between the information that most producers in PRISE countries have and that which they would need to implement adaptation successfully ([Carabine & Simonet, 2018](#)). Tailoring both early warning systems and financial services to the specific contexts of drylands could significantly support the resilience of semi-arid economies ([Carabine & Simonet, 2018](#)).
- **Adaptation is a global challenge:** If adaptation is truly seen as a global challenge as stated in the Paris Agreement, adaptation and climate-resilient development planning needs to be done at all levels. Achieving SDGs collectively and integrating them with adaptation strategies are integral parts of moving towards a resilient world, but developing countries, and in particular semi-arid economies, require support to ensure they can develop the institutional frameworks needed to attract public and private sector investment, create resilient value-chains, and increase the income available to invest in education, health and other important services.
- **International cooperation – thinking outside the box:** Global solidarity on adaptation and resilience-building has to extend beyond the UNFCCC and the Paris Agreement to other global processes, including SDGs and also economic and trade agreements. Standards could be developed to encourage consumers to make choices that support adaptation and climate-resilient sustainable development in developing countries. Commodities that support climate-resilient sustainable development and adaptation efforts could be given preferential treatment in trade agreements.

# Conclusion

The Talanoa Dialogue is an unprecedented opportunity for a constructive, open and inclusive discussion to look at where we are, where we want to get to and how we can get there – and to collectively develop a vision to go farther, faster, together in building a more resilient world.

One of the ways that we can achieve a resilient world, as PRISE sets out, is through economic development that is fair and resilient. For example, research highlights opportunities for increasing productivity and enhancing the performance of both local markets and SMEs that can benefit women entrepreneurs, who are particularly more likely to implement adaptation and resilience-building strategies ([Jobbins et al., 2018](#)). But in order to achieve this and ensure sustainable development, SDGs must be integrated with adaptation and resilience-building efforts.

Global cooperation can help develop an integrated approach to adaptation planning and facilitate CRED. By framing adaptation and CRED as global opportunities, as well as global challenges, we can identify entry points to support these efforts in marginal areas. Global cooperation also has the potential to boost the development of climate information services that support decision-making in developing countries, and institutional frameworks that encourage integrated planning through inter-ministerial and inter-sectoral coordination and cooperation. This international cooperation and global solidarity must go beyond the UNFCCC, SDGs and the Sendai Framework on Disaster Risk Reduction (SFDRR) to include global economic and trade processes and agreements.

At the national level policies such as integrating migration into NAPs, and ensuring that producers have access to financial services and information about climate change and adaptation strategies are both key to ensure adaptation and CRED can proceed in a way that is fair, equitable and builds long-term resilience to climate change impacts.





Reaping millet corn in Pakistan, © ameer\_great.

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Research for climate-resilient futures

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