

Ten investment opportunities, for greener and more productive landscapes in Niger

Niger has a long history of smallholders investing in sustainable land management, supported by the government, NGOs, and multilateral donors. Notable successes both large and small are well documented. This brief highlights ways to build upon these achievements, and make significant impacts to increasing agricultural production, reducing poverty, and helping rural communities adapt to climate change.

Niger is ranked last of 189 countries in the 2020 [Human Development Index \(HDI\)](#). Its population has just passed 25 million, increasing at almost 4% per annum, and will double in the next 20 years. So, surely, if 'international development' aims to target poverty, inequality and environmental sustainability, then Niger should rank top of the list of countries being invested in. It does not. Far from it.



1

Invest in agroforestry as a foundation to increase agricultural production

Smallholders in Niger have themselves already regreened more than five million hectares in densely populated parts of Maradi and Zinder regions, as well as in parts of Dosso, Tahoua and other regions ([ETFRN News 1.9](#)). There are many low cost and high impact opportunities for increasing tree density and diversifying woody species, but these require investment in extension, training and village nurseries.



2

Invest in large scale training of farmers and herders

Farmers and herders with relevant experience can be mobilized to train other. Needed competences include land restoration and sustainable management, organizational and business skills, and conflict resolution. Investment is needed to use all means of communication to share information and experiences especially between different regions, with farmer exchanges being particularly effective.



3

Improve and expand simple water harvesting techniques

In Tahoua, restoring degraded land using simple techniques such as *zai* pits and half moons began decades ago, though many projects have long since ended (e.g. PSN/FIDA-Niger, PDRT, PIK). However, what was achieved laid a foundation on which to build, by expanding the use of such structures ([ETFRN News 1.2](#)). Crop yields on restored land can also be further increased through investment in soil fertility management.

**4**

Protect and improve dry season irrigation

Zinder region in particular has hundreds of small depressions (*cuvettes*) which are being buried by sand and weeds, leading to less water for smallholder irrigation. Investment should explore how these green oases can be maintained and even increased, so farmers can continue to cultivate vegetables, rice, sugar cane, date palms and fruit trees. But this requires much more action on the ground to reverse current trends.

**5**

Increase availability of quality vegetable seeds and improved crop protection

Dry season irrigation is well developed in Tahoua (e.g. Maggia, Badaguichiri and Adouna valleys), which produce many thousands of tonnes of vegetables each year. Investment should address farmers' complaints about a lack of access to quantities and quality of seeds they need, and managing crop pests. Improved seed systems and farmer extension would yield many-fold returns.

**6**

Increase access to quality fertilizer

Research in Niger proves that agroforestry increases crop yields. However, even this is not enough to keep up with population growth. But microdosing fertilizers within agroforestry systems can further double crop yields in the first year, according to farmers who already do it. Investment is needed however, to increase access to adequate quantities of quality fertilizers, with training.

**7**

Invest in rural roads

World Bank studies show that dollar for dollar, road building offers the greatest single impact on rural development, allowing for improved transport of agricultural inputs and products, alongside all associated social benefits. Niger has already invested in improving rural road infrastructure, but the network requires expanding: with new rural roads, resurfacing of parts, or construction or repair of bridges and culverts.

**8**

Support development of new and existing enterprises

Baobab, doum palm, moringa, desert date and gum arabic amongst other trees offer opportunities for value chain development, with women being key actors and beneficiaries ([ETFRN News 2.1](#)). But local enterprises that transform local tree and crop products are an innovation, and need several years of subsidies and support before they are viable in their own right. A one-off grant or loan will not suffice.

**9**

Explore possibilities for local production and use of rock phosphate

Tahoua region has important deposits of rock phosphate, which can be used to improve soil fertility (www.frontiersin.org/articles/10.3389/fsufs.2020.570561/full). A key challenge is to find ways to apply this to fields that are acceptable and economically attractive to farmers. If successful, this will help increase crop yields significantly, as well as generate employment in extraction, processing and transport.

**10**

Support adoption of solar energy and more efficient cooking stoves

Applied in both urban and rural areas, these will reduce demand for firewood. This would benefit the environment, and improve the health of women and girls by reducing their exposure to smoke while cooking, and reduce the time and burden of fuel collection. To be effective however, this will require awareness raising and training, alongside direct investments in the technologies.

Every million dollars of investment in any of these areas would make a major impact in the poorest country in the world, its people, environment and economy. Donor agencies, countries and banks should invest here, where it is needed most, to help achieve the Sustainable Development Goals.

All comments and requests for further information much appreciated.
Contact: nick.pasiecznik@tropenbos.org and chris.reij@wri.org

Issue date: July 2021

Photo: Restored farmland close to Batodi village, Illéla region, Niger 2018.
Chris Reij.

This publication has been made under the programme Working Landscapes financed by the Ministry of Foreign Affairs of the Government of the Netherlands.



www.tropenbos.org