Source: SAED 2012, GéoSénégal 2015, GeoDiff 2016

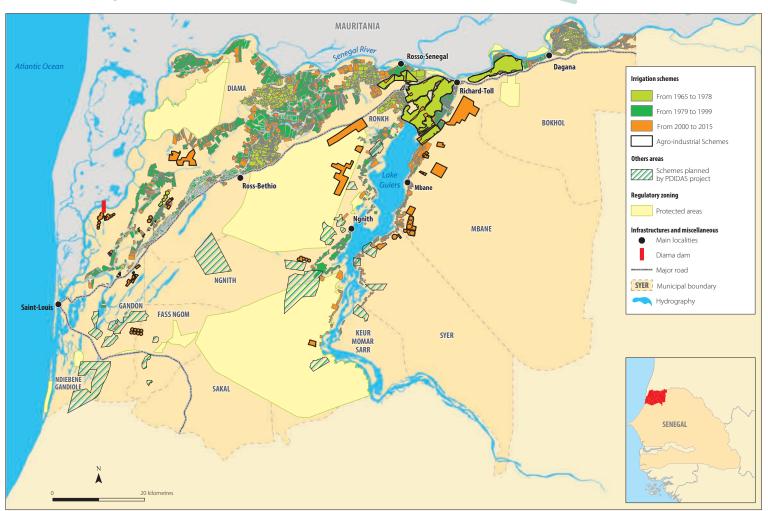
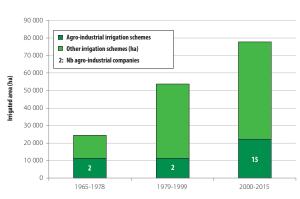


Fig. 19. Extension of irrigation schemes in the Senegal river delta (1965-2015)





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## THE AGRICULTURAL DEVELOPMENT MODEL FOR THE SENEGAL RIVER DELTA

For more than 50 years, the Senegal River delta and Lake Guiers area has seen constant growth in hydro-agricultural developments. Today, the goals of food sovereignty and economic growth assigned to the agricultural sector by the government are being put forward to justify the arrival of agro-industrial investors, raising questions about the future of the region.

## Agricultural intensification based on water management

The Senegal River valley is one of the main agricultural regions in Senegal, with irrigation potential of almost 240 000 ha. Within this area, the delta and Lake Guiers zone (with its agricultural potential of 115 200 ha) is characterised by a number of challenges concerning the use of land and water resources by agriculture (whether irrigated, flood recession or rainfed), pastoralism, fishing, tourism and the general population (water supply to part of the capital city, Dakar). The marked intensification of agricultural activities observed today is being questioned from the perspective of its impacts in terms of land use and practice changes.

Efforts to intensify agricultural production began when the country gained independence in 1960 with the creation of major water schemes, mainly focusing on rice production, and based on the first projects of the 1950s near Richard Toll. In 1965, the SAED (Société d'Aménagement et d'Exploitation des Terres du Delta du Fleuve Sénégal et des Vallées du Fleuve

Sénégal et de la Falémé – Senegal River Delta Development and Exploitation Company) was tasked with developing the management and maintenance of water schemes and water supplies, as well as with land management in these pioneer zones. Almost 25 000 ha of irrigated land had thus been developed by 1978: 13 500 ha of public schemes and 11 500 ha of foreign private agro-industrial schemes.

From 1979, under the impact of the structural adjustment plans, the withdrawal of the state led to a reduction in SAED assignments in farm advisory services and the management of structural schemes. Local producers, organised in unions, were tasked with developing their farms and managing water use. The development of private schemes was facilitated by simplified access to land managed by the rural communities created in 1980 (further to the decentralisation bill of 1972). Consequently, between 1979 and 2000, almost 29 000 ha of private hydro-agricultural schemes were added.

The government continued to support the modernisation of family farming and private entrepreneurship until the mid-2000s. However, the food price crisis of 2008 resulted in a shift in agricultural policy, which now focused on the supposed spillover effects of agro-industries. Thanks to various incentive mechanisms, around 25 500 ha of land were thus irrigated between 2000 and 2015, almost 11 000 ha of which were developed by foreign agro-industries.

## Agro-industry and family farming: competition or synergies?

In the 1980s, the development of private irrigated land was facilitated by improvements in water regulation (thanks to the construction of the anti-salt dam at Diama near the mouth of the river in 1986 and the Manantali dam further upstream in Mali in 1989), by the decentralisation of land management, and by access to credit with the creation of the Caisse Nationale de Crédit Agricole du Sénégal bank (1985). Today, the extension of private irrigated land is continuing with the growing presence of agroindustries that are investing in water schemes (from 2.5 to 4 million FCFA/ha depending on the irrigation method chosen). Projects are being developed in areas previously reserved for livestock farming and are backed by the political will to promote agribusiness, the modernisation of family farming and the agri-food sector. To support this agricultural model, land and decentralisation reforms are aimed at improving land tenure security for investors. The World Bank is accompanying this change through the Senegal Sustainable and Inclusive Agribusiness Development Project (PDIDAS), the goal of which is to promote growth and employment in this part of the river with an increase in private productive investment. In 2015, the project had already pre-identified more than 18 000 ha of land that could be suitable for future investors or for the expansion of agro-industries already present.

In this context, many questions are being asked about the social and economic impacts of this agro-industrial development, especially regarding the role of pastoral activities, the conditions for access to land for family farmers and the consequences of new investments on their production and yields. More generally, the nature of interactions between family farmers and agroindustries is at stake. Will agro-industry have

spillover effects on the delta area, improving the living conditions of local people? What will the future be like for pastoral areas where landuse conflicts are already a source of tension? In spite of the existence of regulatory zoning, these areas are shrinking under the effect of the expansion of irrigated agriculture and of agri-business contract farming. The areas allocated to agro-industries are now forcing pastoralists to find new, less diverse rangelands, thereby adding to friction with family farmers.

This model of agricultural intensification and opening up to agro-industrial investments is potentially divisive given the high rural densities, the size of the agricultural population and the large number of young workers looking for places to settle. Although the choice of the neoliberal development model is supported at the political level, local actors supported by civil society are questioning its social and environmental impacts in areas that were previously reserved for pastoral and agro-pastoral practices.

The future of the delta will depend on the capacity of actors to anticipate and develop change scenarios, to organise the coexistence of the different types of activities, and to find synergies between them in order to ensure sustainable territorial development for a rapidly growing population.

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