

Rede de Sementes do Xingu (Xingu Seed Network)

Introduction

The Xingu Seed Network (RSX) was officially established in 2007 by an association of individuals and organizations working on community development in the Xingu River region. Among the network's participants are representatives of indigenous communities, family farmers, and agrarian reform settlers.

RSX sells seeds from more than 200 native forest species from the forests of the Xingu, Araguaia and Teles Pires River watersheds. Those seeds are used in the reforestation of the Amazon forest and the savannah (Cerrado) in the states of Mato Grosso and Pará. Seeds commercialization generates revenue for communities living in the Amazon region and is a way of creating value from forest territory in a sustainable manner. On the [RSX website](#) one can find a list of all types of seeds for sale and instructions for placing orders on line.

The Seed Network was developed in response to a growing demand for seeds of native species for reforestation in the northeast of Mato Grosso. A significant part of this demand came from indigenous groups of the Xingu for the recovery of forests along the Xingu River. In 2004 the Socio-Environmental Institute (Instituto Socioambiental - ISA) launched the Y Ikatu Xingu campaign, which is still active and has restored about 3200 hectares of forest in that region.

Another part of the demand for seeds came from environmental organizations working on reforestation projects, companies recovering areas affected by hydroelectric dams, and landowners obliged by the Brazilian Forest Code to conserve native vegetation on their properties.

Today the network is comprised of 421 seed collectors and collaborators in 21 municipalities of Mato Grosso and Pará. RSX is active in 13 indigenous villages, 18 rural settlements, one extractive reserve, and two urban centers. In the

Xingu Indigenous Park, four ethnic groups are part of the RSX: Kayabi, Ikpeng, Yudjá and Waura. Xavante indigenous groups of Marãiwatsédé and Pimentel Barbosa Indigenous Territories (IT), and Panará groups (from IT Panará) are also involved in the network.



Daniilo Ignacio/ ISA

Indigenous women collecting seeds

RSX's objective is not only to generate income for indigenous, traditional, and small farmers, but also to promote training for seed collectors, and to conserve the forests, values, and cultures of these populations. Other important goals include strengthening sustainable supply chains of forest products and offering market quality seeds.

To be part of the RSX, a number of criteria and rules need to be followed by collectors¹. For example, collectors must preserve or restore forest areas on their land as required by law.

RSX is now the largest seed network in Brazil, with the largest number of participating organizations and the highest production volume. The network's success has inspired similar initiatives, such as the [Amazon Portal Seeds Network](#). In the future, the RSX intends to continue inspiring similar networks in other biomes in Brazil.

¹For more information on the criteria please consult the RSX website: <http://sementesdoxingu.org.br/site/funcoes-elos/>.

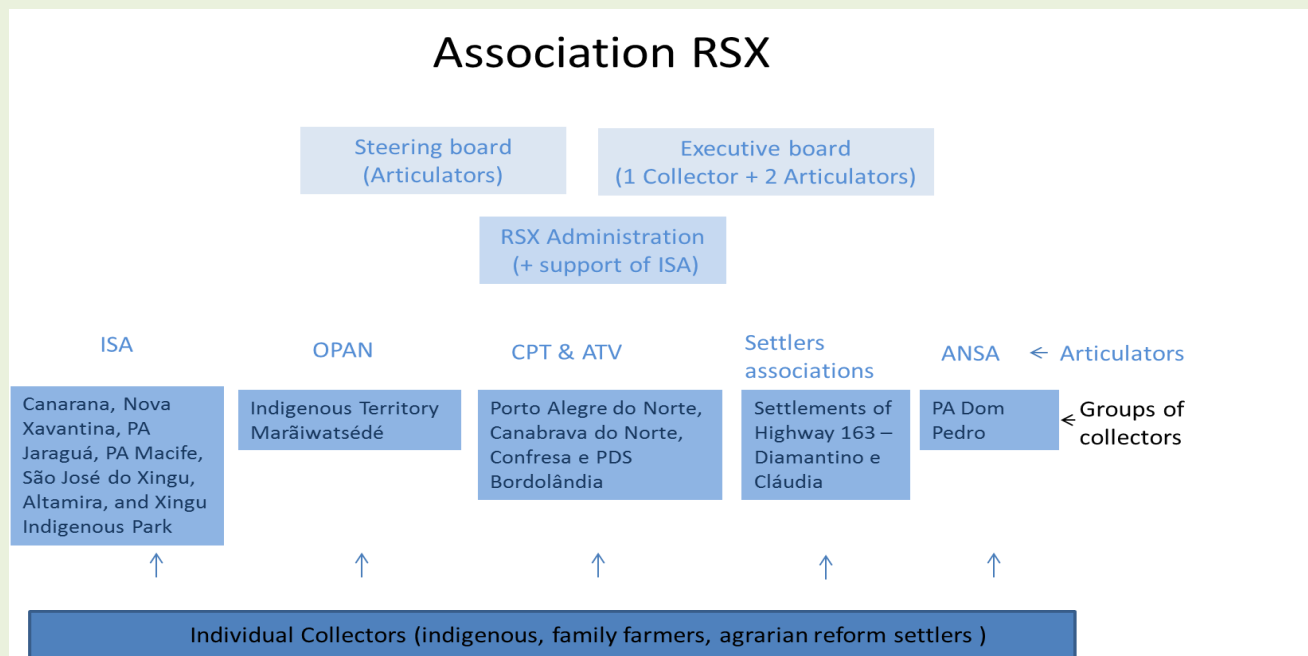
Innovative Organizational Model

Association and legal registration

RSX became a legal entity in 2014. It is categorized as an association of social and commercial purposes. According to economic and juridical studies financed by the RSX, this was the best commercial model for the network because it ensures more flexibility for collectors who do not need to provide individual invoices. The association is responsible for issuing legal invoices to buyers, while collectors provide receipts to the association. Despite this challenge, the RSX has obtained its registration at the National Register of Seeds and Seedlings (RENASEM)—a procedure that is required by the Brazilian government for all those who want to commercialize seeds and seedlings in the country². That is a unique achievement for a community association in Brazil.

Articulators

RSX is based on partnerships among non-governmental organizations that stand out in the development of sustainable supply chains in Mato Grosso. ISA was the first to invite other NGOs to join the network in 2007. Although there is no document that formalizes their partnership, all organizations that are partners of the network have to adopt RSX's principles and criteria. RSX is formally an independent entity; however, NGOs are essential to RSX functioning and constitute the majority of the RSX executive and steering boards. Each group of collectors needs to work with an "articulator" – an organization responsible for the management of collectors in a particular region. These organizations are: ISA, OPAN, ANSA, CPT, ATV and settlements associations along the BR-163 highway³.



²There are many laws that regulate the production and commercialization of seeds in Brazil, the main one being the Law number 10.711 of 5th of August of 2003.

³Instituto Socioambiental (ISA) is the articulator in the region of Canarana and Xingu; Operação Amazônia Nativa (OPAN) works in Marãiwatsédé IT; Associação de Educação e Assistência Social Nossa Senhora da Assunção (ANSA) in São Félix do Araguaia; Comissão Pastoral da Terra (CPT) and Associação Terra Viva (ATV) work in Porto Alegre do Norte, Cana Brava, and Confresa.

Participatory dynamic and continuous training

Articulators participate in the activities of the steering board and the executive board of the RSX legal entity, which also includes a seeds collector member. They organize courses, workshops, and meetings in order to develop work plans and activities. General meetings bring together about 100 people to discuss new strategies, make decisions, and participate in workshops focused on supply chain development. There are often three general meetings per year.

Challenges

Financial autonomy

The commercial part of the network is well developed and a cash flow capable of ensuring all payments to collectors has already been established. In 2015 the association sold 17 tons of seeds, generating BRL 311,000 (approximately USD 95,000). Previously, everything that was paid by the buyers was transferred to the collectors; management and administration were supported separately through projects. Today, sales also cover some fixed costs. This is possible because the amount charged to buyers can be 50% (in cases of reforestation campaigns such as the Y Ikatu Xingu) to 100% more than the amount paid to collectors⁴. However, the revenue generated by sales is not enough to cover the costs of annual meetings, training courses, and workshops to improve the supply chain. Such activities are financed by collaborative projects, especially with the Amazon Fund. ISA is still the main fundraiser, but RSX manages its own resources.

The amount paid to seed collectors varies from 1 to 222 BRL according to the species of plants. Prices are reviewed annually by collectors and organizations during general meetings. Payments are transferred from RSX to collectors within 20 days after the delivery of seeds, even if buyers take longer to pay for the products.

Logistics

Transport infrastructure is considered one of the main problems for the supply chain development. Long distances and high transportation costs make products more expensive for buyers. Producers are responsible for seed delivery to storagehouses located in Amazonian towns, such as Canarana, as well as for delivery costs. At the storage houses the seeds are processed for quality control purposes. Buyers then cover the expenses of seed delivery from the storage houses to their final destination (NGOs are responsible for these logistics)⁵.



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⁴Since 2007 the main commercial partners of RSX have been: Agropecuária Fazenda Brasil; Borges e Prudente Soluções Socioambientais (company that recovered forest areas around hydroelectric dams in Goiás state); partner NGOs promoting environmental recovery projects (ISA, ANSA, OPAN, ATV, etc.); Associação Xingu Sustentável; individuals who order through the RSX website (representing 5 to 10% of sales). Each year these partners buy approximately 22 tons of seeds. The main donors are the Amazon Fund, Manos Unidas, Instituto Guapuri, and Porticus.

⁵Urzedo, 2014. p. 51

Engaging youth

Another challenge is involving the youth in RSX's work. There is significant emigration of young, Indigenous people seeking economic and educational opportunities in other places, particularly in urban areas. Aware of this problem, RSX is developing a special program focused on young people and on the exchange of experiences between generations.

Changes in forest legislation

A recent decrease of demand for seeds is also a great challenge. Changes to the Brazilian Forest Code in 2012 have led to the reduction of reforestation and conservation requirements on private properties.

Furthermore, Brazilian law is very strict regarding the production of forestry seeds. For small farmers and indigenous peoples it is difficult to adapt to the bureaucracy and quality criteria demanded by the government. In response, RSX has been trying to change rules in order to reduce requirements and modify national legislation according to the reality of small producers and indigenous peoples. This action has already yielded some results. Two years ago RSX obtained the official authorization from the Ministry of Agriculture to produce and commercialize seeds.

Key points

1. Donor financial support was important to scale and begin the process of becoming financially sustainable.
2. The new Forest Code caused a sharp decrease in demand of reforestation seeds in Brazil.
3. Participation by women in the collecting of seeds provides empowerment opportunities.

Impacts

Social benefits

One of the main impacts of RSX is the strengthening of community development and identities. In the case of indigenous people from Xingu, most of the seeds collection groups are led by women with significant youth participation. The collection of seeds has opened an important space for women within indigenous communities. Women not only play a new role in generating income, but also enhance their political organization and exchange of experiences. In the Ikpeng village, for example, female collectors have created the Yarang women empowerment movement⁶. By making space for similar initiatives, RSX is contributing to the empowerment of indigenous women.

Another important result of the RSX is the continuous training of collectors to improve production techniques and seed quality. Courses and workshops are often conducted in collaboration with researchers and technical experts⁷.

Seed collection also contributes to economic diversification away from dependence on only cattle or soy. This new source of income has the added benefit of increasing food security and the creation of agroforestry plots.

Environmental recovery

Between 2004 and 2014 the Y Ikatu Xingu campaign recovered 3200 hectares of forest in the headwaters of the Xingu River, and worked on more than 230 rural properties⁸. The amount of water and the number of fish within indigenous

⁶Yarang means a type of ant that has an important role of forest restoration and protection of local biodiversity, according to Xingu indigenous groups.

⁷As an example was the Exchange of seeds quality in the University of Mato Grosso State, where more than 100 participants worked at the Seeds Lab of the University of Nova Xavantina in May 2015.

⁸INSTITUTO SOCIOAMBIENTAL "Plantio mecanizado criado na Campanha Y Ikatu Xingu é modelo na recuperação de áreas degradadas". 31 of October 2014. Web. Consulted in June 2016.

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land have considerably increased according to anecdotal observations of the local peoples. This would not have been possible without the seeds provided by the Xingu Seed network. Additionally, the campaign has developed a mechanized forest planting technique using agricultural machinery and a mix of native seeds. This technique and the seed mix (called "muvuca") serve as a reference model for academics, farmers, and technical experts at the national level.

Income generation

The collection of seeds is the main source of income for some collector families living in rural communities in Amazonia. They collect seeds in public forest areas, parks or in rural properties of third parties. There are cases of collectors who earned an income of BRL 7,000 per month⁹. Some families have incomes of BRL 40,000 to 50,000 per year from seed collection. These rural collectors play a key role in scaling up production, responding to the annual demand for seeds. These individuals also contribute to the recovery of 300 to 350 hectares per year. They collect the largest amount of seeds and generate the most innovative techniques within the RSX. For most indigenous and farming communities, seed collection generates considerable income but is not the main economic activity.

Future strategies

The RSX aims to develop a better business model in order to achieve financial stability. The network intends to continue building capacity and developing social activities. For this, RSX is creating studies, business plans, and strategies. Its goal is to be financially independent within four years. Currently there is a training program for RSX managers. Another objective is to obtain certification of seed origin.



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⁹ Rede de Sementes do Xingu, 2015.p. 6
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