DYNAVERSITY

Kaol Kozh (France)

Case study analysis

DYNAmic seed networks for managing European diversity:
conserving diversity *in situ* in agriculture and in the food chain

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PART 1: DESCRIPTION

1.1 Contextualising the case

The case of Kaol Kozh, association from Brittany in the north of France, allows, on the one hand, to understand how non-registered seed can circulate between professionals. On the other hand, the case study demonstrates how to promote the use of landraces or in general varieties obtained by farmer mass selection over time (called here population varieties). The association called Kaol Kozh (meaning 'old cabbage' in Breton) brings together about sixty people composed of a few gardeners, mainly market gardeners. They have been leading the organisation since its foundation in 2007. Kaol Kozh has two objectives: to legally distribute vegetable "peasant seeds" and to make the seed issues visible to the public. Kaol Kozh's activities are based on vegetable varieties not registered in the official catalogue.

To understand Koal Kozh it is necessary to look back at the previous elements that structured its foundation. Wishing to contribute to the development of a reference framework in organic production for Brittany, the Association des Producteurs de Fruits et Légumes Bio Breton (APFLBB), together with several partners such as Initiative Bio Bretagne (IBB), Armorique Maraîcher and downstream distributors (Biomass, Poder, Pronatura Bretagne), developed the Platform Agrobiologique d'Initiative Bio Bretagne (located on the farm of the Lycée Agricole de Suscinio in the French municipality of Morlaix and known as PAIS). The project benefits also from public subsidies from the General Council of Finistère, the Regional Council of Brittany, and the Ministry of Food, Agri-Food and Fisheries. In addition, the project receives specific funding from the "Rural Agricultural Development" programmes of FranceAgriMer and also from European research programmes (Le Guern 2013: 4).

Through the testing, which is performed at the testing station, PAIS carries out a series of activities:

> "- Evaluation and characterisation of genetic resources in order to breed and select commercial varieties adapted to organic production;
> - Development of agronomic practices adapted to the selected new varieties;
> - Development of alternative methods in the place of chemical pesticides adapted to the context of organic production;
> - Study the relationship between Organic Agriculture and Biodiversity"
> *(Le Guern 2013 : 4)*

In 2000, within PAIS, producers and INRA researcher Véronique Chable discussed their concerns about the use of the Cytoplasmic Male Sterilization (CMS) technology in the selection process for organic varieties. In their opinion, the CMS is based on activities that modify cells of the plant and therefore should not be used in organic breeding (Dondeyne 2013: 75).

In parallel to the CMS issue, Véronique Chable obtained internal funding from INRA (INRA-CIAB) to conduct research on organic breeding in 2000. Thus, it was proposed to Inter Bio Bretagne (IBB) to explore, with the participation of farmers, the adaptive potential of cabbage population varieties for organic production in Brittany. The funding resources allowed Chable to develop counterproposal on the development of "farmer seeds" in relation to CMS. The term "farmer" refers to a selection practice that the farmers themselves conduct yearly in their fields; a temporal dimension dynamically constructed from year to year. In this manner, this type of practice revives the peasant heritage in order to cultivate vegetables preferred and selected by the peasants themselves.

Still within this process of farmer selection of seeds, farmers define an "ideotype", i.e. the set of ideal characteristics which have been observed in some of the plants in the initial population. On that basis, PAIS' breeding work is aimed at improving the population varieties by selection/multiplication over several generations with the idea to create new varieties adapted to organic production as a result. These selection criteria include adaptation to pedo-climatic conditions, as well as general appearance of the vegetable (e.g. weight, ease of harvesting, spreading or grouping of the harvest, hardiness). Breeding efforts also address resilience in relation to "stressors" and climate change, to boost the plants' adaptive capacity.

From 2001 to 2003, the Suscinio testing station tested more than 300 cabbage varieties (Conseil and Chable 2009), including 120 autumn cauliflowers, 100 winter cauliflowers, and 80 pointed cabbages. Observation and testing plots were carried out at the farmer level in order to identify their local adaptive potential. These plots also sought to "combine the homogeneity of the product and/or agricultural criteria with the heterogeneity of the genetic background" (Conseil and Chable 2008). The origins of the strains vary. For example, winter cauliflowers have come from the INRA collection, collected in 1983 from local varieties known as old varieties; autumn cauliflowers have come from various European gene banks (Gene Bank of Wellesboune in Great Britain; Center of Genetic Resources in

Wageningen in the Netherlands; French GEVES; and French breeders); for other cabbages, strains have come from the UMR APBV INRA ENSAR in Rennes, France (Conseil et Chable 2008).

Thus, of the 300 varieties tested, ten populations were selected for winter cauliflowers and six for autumn cauliflowers. In addition, new crosses were tested as well. Thus, using standardized and conserved strains, farmers and researchers oriented toward breeding for certain characteristics are able to obtain populations with a new identity.

PAIS allowed the meeting between INRA's resources (organizational, financial, seed) brought forth by the findings from Véronique Chable's research, and the collective action initiated by farmers, including René Léa and Alain Rousseau, which brought with them as well seed know-how inherited from their grandparents.

The existence of PAIS made it possible to discuss CMS, and to test an alternative method of selection based on landraces. Véronique Chable's catalytic role was crucial in fostering the dialogue between scientists and practitioners. Her presence, in the context of a research project, allowed breaking a deadlock in the use of non-DUS varieties: giving the needed scientific justification to experiment. The collaborative modalities set-up between INRA and the farmers during this meeting allowed a new approach to develop that mobilized practitioners.

After this initial initiative that took place in early 2000s, Koal Kozh was created in 2007 to continue the work of PAIS and INRA. Until May 2017, Kaol Kozh has been operating on a voluntary basis under the provisions of its funders.

1.2 « Doing »

1.2.1 Properties WITHIN the initiative (closure)

Seed distribution takes place in different ways. First, it can be informal. For example, at general meetings those who want to place their varieties on a table are invited to do so. In general, the name of the variety is indicated, either manually on the bag or on a label next to it. When talking with each other through other informal exchanges, people inform each other about "their" varieties, indicating the table where seeds are made available. It is not a question of "exchange", because there is no expectation of getting another set of seeds in return. Instead, these transactions are considered open offers, a free flow of seed between people. In addition to this informal and invisible circulation, from the beginning the association has created a formal system for seed exchange as well. This formal system has aimed to make the existence of their practices visible in order to have them recognized as legitimate. According to the members of Kaol Kozh, the imagined system is one that legally bypasses the prohibition on the release of seeds unregistered within the official catalogue of variety and allows seed exchange therefore legally between professionals. The transaction operates through the rule of issuing an invoice that provides "maintenance service" in place of "sale" of seeds. Furthermore, the supplier's invoice is addressed to Kaol Kozh, not directly to the receiver. Kaol Kozh then invoices the requester for the provision of the service. Thus, seeds not listed in the Catalogue are still allowed to circulate amongst producers on behalf of the service that the association provides.

This system is based on the following hypothesis: the issuance of numerous invoices would make it possible to make the seed circulation visible in a circumvented way (because it is not included in the Catalogue), but legal (because it is part of a closed group). For the bearer of this innovation, the number of invoices could be problematic in the event of a lawsuit. For others who participate in it, increasing numbers of invoices could bring unwanted attention to the activity, jeopardizing its survival.

This system is supplemented by a database where members indicate their seeds (not listed in the catalogue) at their disposal. All seed lots where members have their seeds also constitute the association's seed stock.

However, it should be noted that the seed exchange mechanisms and the database are not fully exploited by Kaol Kozh members. According to my interlocutors, the lack of interest can be attributed to three reasons. First, the administrative burden that this represents can lead members not to charge or charge only for certain volumes. Secondly, due to the absence of employees to handle these matters, the processes would be too slow if many members used it frequently. Finally, market gardeners have not devoted the necessary time to learning and using the invoicing tool and for this it remains underutilized.

Nevertheless, this system constitutes a reason for participation in collective action. However, we can see that the invoicing system and database contribute very little to the visibility of the existence of a breeding practice outside of the conventional ones.

1.2.2 Properties BEYOND the initiative (outreach)

At PAIS, producers can identify unknown phenotypes and observe and select populations present in their production fields. However, legislation still prohibits the multiplication and exchange of seed among professionals for varieties which are not listed in one of the national or European official catalogues. For this reason, René Léa and Alain Rousseau began a reflection with Véronique Chable to find a way to put these varieties into legal circulation and make visible the practice of mass selection of "farmer seeds". For the founders of the association, it is important to develop a collective form of exchange so that seed can legally circulates and farmers can exchange their know-how and knowledge openly. “For the initiators of Kaol Kozh, seeds must be accessible to all those who want to make them live" (Kaol Kozh website consulted on 30.04.2019)

The name of the association is significant, indicating its purpose and intention. The association's website points out that: "Kaol Kozh means "old cabbage" in Breton and "common good" in Russian" (Kaol Kozh site consulted on 30.04.2019).

The creators of the association intended to put seed into circulation between professionals, through developing a space in which seeds are co-owned by all members. In this way, by confining the circulation of seeds to within the organisation, the creators believe that their creation is not outlawed by the legislation. At the same time, this organisation of seeds has managing also to overcome any locking of the conventional seed system.

1.2.3 Transformative effects beyond the initiative

The elements described above: co-ownership, sharing of knowledge and know-how, informal and formal circulation, all allow the creation, maintenance and dissemination of seeds and associated knowledge. From this work, a Breton peasant identity has emerged.

1.3 « Organizing »

1.3.1 Properties WITHIN the initiative (closure)

The association has also formally defined its functioning through the development of statutes. It governs itself and its activities through the use of a general assembly and a board of directors. Physical meetings of the board remain open to all members. Until 2017, one of the difficulties of this mode of operation has concerned administrative follow-up (i.e. list of members, information for CAs, minutes) due to the absence of an employee coordinator. However, despite these challenges, Kaol Kozh members have still been able to maintain the essence of their association.

1.3.2 Properties BEYOND the initiative (outreach)

The networking within Kaol Kozh between market gardeners in short and long supply chains has provided an original vision for the development of vegetables from "farmer seed" sources. Kaol Kozh and the APFLBB are leading the debate within the Réseau Semences Paysannes (RSP) on the need to promote products derived from "farmer seeds". The RSP is a national network of French organizations involved and/or practicing cultivated biodiversity. It was created in 2003.

In January 2016, the RSP decided to protect the term "farmer seeds". Faced with the impossibility of protecting a generic term, the RSP filed three terms with the National Institute of Industrial Property (INPI): "peasant seed", "peasant seed in network", "Networked peasant seeds". The term "peasant seed" had already been registered by another individual (Philipe Guichard, a seed producer). The terms registered by RSP are accompanied by a logo, a set of rules of use (i.e. definition of the brand owner, how to manage it, its use and sanctions) and specifications (e.g. the origin of the seed, traceability criteria, and quality aspects).

To offer an outlet for production and promote the "farmer seeds" approach, the RSP has turned to the distribution chain Biocoop, specialising in organic products. In May 2016, after two years of discussions, RSP and Biocoop signed a "framework agreement" base on a dual financing mechanism. A fixed annual fee for the use of the mention "Farmers' Seeds in Network", and a variable fee for the selection/multiplication work (Farmers' Seeds Network 2016) were a part of this agreement. RSP and Biocoop also decided to test new varieties for a period of two years (December 2016-December 2018), with the promotion of vegetables under the brand "Semences Paysannes en Réseau".

While Kaol Kozh was preparing the labelling of the first products, in March and April of 2017, the communication company Publicis contacted several members of the RSP (including members of Kaol Kozh) in order to carry out a communication campaign for the Carrefour supermarkets. The RSP denounced the campaign by Carrefour as greenwashing, while Kaol Kozh believed that it was better to be part of the Carrefour initiative rather than leave the

retailer alone to run its initiative without their input. Thus, Kaol Kozh decided to "accompany" Carrefour in its approach entitled "Forbidden Market".

Koal Kozh is developing a certification system adapted to both Biocoop and Carrefour. Depending on the distribution channel, the label on the product varies. For Biocoop, the label reads "vegetables from farmer seeds", while Carrefour's label states the product as from "farmer seeds". In exchange for this expertise, according to my sources, Carrefour's foundation supports the breeding activities with an annual funding of 186,000 euros for a period of five years. The money is then distributed between Kaol Kozh and the APFLBB (Association des Producteurs de fruits et legumes biologiques Bretons). For its part, Biocoop is providing 40,000 euros to support research concerning varieties from 'farmer seeds'.

The Carrefour supermarket is launching a national campaign to promote vegetables grown from farmer seeds. They call the campaign and its products "The Forbidden Market". The retailer registered 'peasant seeds' as a brand, set up differentiated shelving for it within its store, and organized a petition to demonstrate interest in the products among consumers. Furthermore, each vegetable is associated with a dedicated farmer. These efforts were boosted by an associated powerful media campaign that produced nearly fifty national and regional articles and television interventions. In its marketing campaign, Carrefour is trying to position itself as a defender of biodiversity. Their petition for biodiversity has received 83,654 signatures and though it could be seen as green washing, it nevertheless contributes to the demand for justice towards the circulation of biodiversity and those who practice it.

1.3.3 Transformative effects beyond the initiative

For Kaol Kozh members, seed circulation is of two kinds. The first takes place after self-production and occurs between members of the organization trading seed amongst themselves. The second occurs when seeds are sold to seed companies; when organic population varieties are resold to companies such as Germinance or Agrosemence. The seed circulation system within Kaol Kozh consists of mandating market gardeners to carry out the seed production work.

Some producers consider themselves too inexperienced to offer their seeds to other members. This difference implicitly organizes the association into two groups of members: the "experienced" ones who represent a few producers, and the "apprentices" who are newer to the system. The first category includes eight producers out of the 64. Among these eight producers, some have also produced seeds for seed companies (i.e. Germinance, Agrosemence). This level of seed production commits the producer to a contracting outsider. Since the seed will be marketed on an anonymous market, the correspondence to the indicated variety is important, as well as its germination capacity. Therefore, the identity of the seed is linked to the name, description of the variety and the indication that it is indeed that strain.

The quantities of seed produced for a reseller range from a few to more than 50 kg. The seed activity benefits farmers also by making it possible to improve their financial income while enhancing their work in a less strenuous fashion than most vegetable production work. The weight of seeds also demands a much higher price than the equivalent weight of vegetables. For these reasons, the work tends to be less extensive, but more meticulous.

With regard to the three instances of seed production (i.e. self-production, production within Kaol Kozh, production for a seed company), the need for a description of seed is linked to the distance between source and recipient of seed. The farther away the seed company is, the more the seed must correspond to a description of an "expected" plant taken up by the name of a registered or unregistered but well described variety.

PART 2: ANALYSIS

2.1 Knowing

2.1.1 Properties WITHIN the initiative (closure)

Kaol Kozh's work aims to re-appropriate knowledge and practices that have been eroded since the modernization of agriculture. The production of knowledge is the result of a co-production between people who are initially ignorant of agriculture or seeds and people who have an inheritance of knowledge from their grandparents. On the other hand, it is by experimenting together that they develop new knowledge. Thus, knowledge of the practice of en masse selection is no longer a generational transmission, but a horizontal sharing within a "community". Both share their experiences

in order to learn from each other based on their trial and error experiences.

2.1.2 Properties BEYOND the initiative (outreach)

Within Kaol Kozh, the construction of legitimacy of the recognition of practices doesn't come from the seed but from the vegetables themselves. As the end-product coming from an initial seed, the vegetable carries all the practice (and therefore the knowledge and know-how) necessary for its production, including seed selection and breeding. To this end, market gardeners have developed a sign identifying vegetables from 'farmer seeds'.

2.2 Framing

2.2.1 Properties BEYOND the initiative (outreach)

The way in which this organization makes public their problem of limiting the release of non-DUS seeds (Distinction Uniformity Stability) is by marketing vegetables with a distinct recognition sign. The dissemination of their approach is carried out in short supply chains (e.g. AMAP, local markets), within stores specializing in the sale of organic products (e.g. Biocoop), and in the conventional supply chains such as international supermarkets like Carrefour. For this, we can say that the way to make the seed issue public within Kaol Kozh is to go through the market.

2.3 Networking

We have identified four different bridges:

The Agrobiological Platform of the Bio Bretagne Initiative (PAIS) in Suscinio (France) acts as the first bridge. This place allows future members of Kaol Kozh to test population varieties, which is permitted by its designation as a research facility. Moreover, this same place allows the meeting of various actors (i.e., farmers and researchers).

The second element concerns the principle of co-ownership developed by the organization. It allows the association to circulate non-DUS seeds between members. The use of this principle is at the borderline of legality. Through its invoice system, Kaol Kozh keeps together, puts into circulation, and makes visible their practice of mass selection and the seeds that result from this process.

A fourth bridge concerns the transition from seed to vegetable as a spokesperson. The combination of the vegetable and a separate label makes it possible to report on the producers' approach. Thus, in order to make the issue of the release of non-DUS seeds and the practices and practitioners that accompany it widely visible, the association is developing a separate identification method. Following this development, vegetables from so-called "peasant" seeds will carry a label that distinguishes them from F1 hybrid-produced vegetables. This label varies according to the distribution channels as reading "from peasant seeds" or "peasant seeds".

PART 3: SUMMARY

The study of the Koal Kozh case allows us to draw several conclusions:

The first main conclusion is to highlight that such project could not have been initiated, nor developed, without the support of testing capacities and infrastructures over a long period of time. The second main lesson of this case is related to the communication objects of the project, which have moved to being focused on the seed to and the final product (the vegetable itself). Thus, what is now valorised in the project is the final product sold to consumer and the seed itself. As a third lesson, the Koal Kozh case shows that breeding objectives are different based on the destination or recipient of the seed (i.e. short vs. conventional supply chains). Differences in breeding approaches have to be respected, recognised via a dedicated labelling approach, and can co-exist under such projects. Under such approaches, Kaol Kozh has promoted the social heterogeneity (and demand) of consumers while acting under the same project.

The application of the principles of diversity at every level of the project has led to the recognition of Kaol Kozh as an "expert" in the area of farmer seeds. This recognition has been built thanks to the size of the project, its impact, the

capacity to co-manage the needs of various customers (short vs conventional food supply chain), and through the respect of individuals and networks of individuals who coordinate and work together based on trust.

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