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Social norms for population displacements caused by large dams France, 20th century

The example of the Tignes and Serre-Ponçon dams in the Alps and the Aigle and Bort-les-Orgues dams in Haute-Dordogne

Armelle Faure

EDITOR'S NOTE

Translation: Brian Keogh

- 1 The displacement of populations brought about by the construction of large dams is a focus of concern for both anthropologists and sociologists accompanying development projects at the international scale. The work of Brokensha (1963) and Chambers (1970) on the Akosombo dam in Ghana was groundbreaking in this field. Scudder has also provided a valuable contribution to international research since the 1960s through the analysis and monitoring of the social impacts of the Kariba dam in Zambia (Scudder, 1962 et 2005). International organisations have sought to reduce the negative effects of dams on local populations, upstream as well as downstream of catchment areas. Standards imposed today by the World Bank and the Asian Development Bank are based on the recent work of the World Commission on Dams (WCD, 2000). For some ten years, the World Bank had reduced its investment in the construction of large dams, and did not participate in financing the Three Gorges dam in China. At the moment, however, the financing of large hydraulic development projects has been resumed.
- 2 France constructed numerous dams before, during and after the Second World War to satisfy its increasing energy requirements and to provide infrastructures capable of meeting the country's needs for modernisation. The dams provided structures that were both technically and aesthetically remarkable and were the pride of the great civil engineers of the 20th century, supplying energy to meet peak period demand by

complementing that produced by the thermal and nuclear power plants. But what was their human impact? How were local populations affected by the construction of these ambitious structures? How were land expropriations carried out? Was the cultural and religious heritage taken into account? In short, were the current standards imposed on companies and borrowing States by international organisations respected at that time?

- 3 The history of the construction of large dams in France, as perceived by local residents, has only attracted the attention of the social sciences relatively recently. It is still very patchy (based essentially on the dams at Tignes and Serre-Ponçon and those of the Dordogne) even though dams have become “places of memory”, according to the expression coined by Nora¹. Those who witnessed this period encouraged this trend by making pilgrimages to the sites when the structures were drained, and by passing on photos and anecdotes from one generation to the next. The French experience provides heuristic comparative qualities by showing that certain mistakes made at the time should now never be repeated as long as international environmental and social standards are respected.
- 4 The present social analysis, in compliance with current standards on the displacement of populations, looks at the following aspects: communication with and participation of the public in decision-making; infrastructures and re-establishment of transport links; reconstruction of municipal and community buildings; expropriation of residential buildings and farms; religious and cultural heritage.
- 5 In this analysis the author draws on the work of historian Bodon (1997) and Varaschin (2001) on Alpine dams, and more especially on Bodon’s meticulous study in her thesis comparing the experiences of the dams at Tignes and Serre-Ponçon. For the Dordogne valley, the author uses her own research, conducted over seven years, on the environmental and social impact of the five large dams situated along the Dordogne river in the departments of Corrèze and Cantal (Bort-les-Orgues, Marèges, Aigle, Chastang and Sablier d’Argentat). A comparison with the current situation is made using the author’s thesis on the Bagré dam in Burkina Faso, carried out in the field between 1983 and 1989 (Faure, 1996), and her studies conducted for the World Bank in a dozen countries in sub-Saharan Africa and Asia. These studies are analysed in the Rapport d’Habilitation à Diriger les Recherches (Report on the authorization to supervise research) entitled “Anthropologie des grands barrages et des infrastructures. Vingt ans d’expérience d’une anthropologue française” (Anthropology of large dams and infrastructures: twenty years of experience of a French anthropologist) (Faure, in preparation). These studies apply international standards and policies for infrastructure projects (the directives are available on the internet site www.worldbank.org, see “Involuntary Resettlement Policies”). The studies of the World Commission on Dams cited above and those of the anthropologists Scudder (2005) and Cernea (1985, 1989, 2000, 2001) on forced population displacements complete the critical framework.

Communication with and participation of the public in decision-making

- 6 This element is today of prime importance when we are dealing with the displacement of populations living in the basin of a future dam. Good communication with the populations potentially affected by the construction of an infrastructure is of the

utmost importance. It helps avoid delays in the completion of structures and limits negative reactions during the expropriation and resettlement phases. It also prevents feelings of frustration, which can be passed on to future generations, as witnessed in the interviews conducted at Bort-les-Orgues and Tignes. It helps give a dam a positive identity from a human point of view.

- 7 The very long intervals between the first studies and the start of construction work, which in the cases of the Aigle and Tignes dams lasted from the late 1920s until the outbreak of war, with all the slowdowns and uncertainties that this implies, make local populations sceptical about the reality of their valley being flooded, which in turn reinforce the phase of denial among future expropriated owners. Furthermore, the authorities are not asked by the institutions to take into consideration the impact on local populations, but rather the opposite. Bodon meticulously describes the methods of communication used by Ponts et Chaussées (the Highways and Civil Engineering department) before and after the war to get the local population to agree to the construction of a dam (Bodon, 1997, p. 151-221). The strategy may be summarised as follows: "Personal contacts consisted in obtaining local support among deputies (members of parliament) and departmental councillors" (p. 161). There was no real policy of consultation, a shortcoming that continued even after the creation of EDF (French Electricity Authority) in 1946. Decisions were "top-down" as opposed to "bottom-up" or participative, which developed much later in the 1990s.
- 8 Public utility surveys are conducted at the scale of each municipality and local populations are invited to give their opinions. Related documents are available in the Departmental Archives. For the four dams in question, the most frequent questions dealt with expropriations, the re-establishment of the means of road and rail links to ensure the opening up of the region, and sometimes the actual justification for the dam itself (as in Tignes, where 77 written interventions went as far as to deny the legal validity of the operation (Bodon, p. 229). There was no real dialogue set up by any institutional organisation to allow the public to participate in decisions. Today this would be compulsory. Nevertheless, in some areas it may be observed that certain prefects (representing the State) endeavoured to put forward the views of locally elected officials who reflected far better the opinion of the local populations. This was the case in Bort-les-Orgues, but much less so in Tignes.

Infrastructures and the re-establishment of transport links

- 9 One of the priorities for displaced local populations was the re-establishment of transport links. The dams at Bort-les-Orgues and Serre-Ponçon had a profound impact on the movement of both people and products because of the length of the lakes that were formed (the lake at Bort extends some 21 km, flooding an area of 1,073 ha, while Lake Serre-Ponçon stretches 19 km along the valley of the Durance and 9 km along the Ubaye valley, covering a total area of 2,825 ha). Lake Serre-Ponçon flooded 14 kilometres of the Gap-Briançon railway and 60 kilometres of roads.
- 10 For the Bort valley, the loss of the railway, which ran along the valley bottom, proved dramatic for the Auvergne hinterland. As early as 1942, ten years before the flooding, a Report prepared by the Prefect of the Corrèze department drew the attention of the

Provisional Government to the economic disruption that would be caused by the inevitable elimination of sections of railway track between Aurillac and Paris and Béziers and Paris. "94 municipalities distributed over 3 departments would thus lose their vital outlet to the Parisian market and would be condemned to asphyxiation (translation)". In 1946-1947, the mayors and inhabitants of the municipalities concerned, in both Corrèze and Cantal, organised numerous protests and demonstrations to get the Bort-Eygurande rail connection re-established. The inhabitants of the valley remember the last train in May 1950, and several mayors in the region keep a photograph of it in their office. Many inhabitants who remember the train still harbour feelings of resentment towards the French Electricity Authority (EDF) for having deprived them of their rail service to Paris. During the surveys conducted (1990-2006), they pointed out that this matter is still before the High Court (Council of State) and they believe that this is the only reason why the dam at Bort has never been officially inaugurated (Faure, in press a) and b)).

- 11 The inhabitants of Tignes managed to ensure that the hamlets that were not flooded did not become isolated. However, this has been but scant consolation since the majority of the local population left the valley when it was flooded to form Lake Chevril, depriving them of the pastures necessary for their stock-rearing activities.
- 12 The inhabitants of Ubaye, one of the municipalities threatened by the flooding to create Lake Serre-Ponçon, sought the re-establishment of the rail link between Chorges and Ubaye. In fact it was a prerequisite for their survival since before the construction of the railway and the D900 road, the Ubaye valley was one of the most isolated regions of France, particularly in winter when the mountain passes are blocked by snow. There were demonstrations for the reconstruction of the Chorges-Espinasses link in April 1957 and the association of mayors of the Hautes-Alpes department organised an administrative strike in September 1959. The failure to restore this rail link meant the end of Ubaye, as the inhabitants refused to move their village knowing that they would lose their economic links with outside markets. Emigration, which had stopped during the time the rail link existed, began again. The inhabitants of Savines, on the other hand, were given a new station providing them with a rail link to Chorges, as well as a viaduct of more than 900 metres providing access to the main road between Gap and Briançon (Bodon, 1997, p. 354 to 359).
- 13 Most of the local bridges and roads were reconstructed in France and the dykes forming the dams were used for traffic. But the rail links were not reconstructed which caused enormous economic harm locally. The authorities relied exclusively on the capacity of road transport to meet local needs, and this took time to take over from the railway. Today, worldwide, the restoration of communication links and the construction of infrastructures to open up areas are among the most important budgetary items in Action Plans and Reinstallation Plans. They make it possible to reduce the risks of impoverishment caused by major development schemes (Scudder, 2005, p. 129). International policies should therefore insist more on the restoration of communication links. At the moment, they are failing in this respect.

Reconstruction of municipal and community buildings

- 14 The reconstruction of municipal and community buildings was decided at the outset by the national electricity authority which, for each displaced site, provided for the

reconstruction of the Town Hall, school and post office. For each site, provision was also made for relocating the cemetery along with the remains of the deceased to a place chosen by each family, accompanied by the construction of a new chapel (Ubaye and Port-Dieu) or the reconstruction of the church that was destroyed (Savines and Tignes).

- 15 The serious difficulties encountered at Tignes during the transfer of municipal premises were not caused by refusal to rebuild the buildings. They were more the result of lack of planning regarding the treatment of the population living in the basins of the future lakes, in particular the question of compensation for expropriation, and the reconstruction of the villages that were to be flooded.
- 16 According to the regulations in force at the time, the transfer of an administrative centre must be made before the original site disappears. The choice of the new site must therefore be known sufficiently in advance for the inhabitants to be able to build there before abandoning their expropriated property (Bodon, 1997, p. 353). It was only in Savines that the inhabitants knew sufficiently ahead of time where to build. In Tignes and the Bort valley, the situation regarding the new site was far less clear so that the residents of the former were obliged to remain on their property and defend their interests in a state of uncertainty, while those of the latter had to leave the valley. In addition to the lack of communication underlined at the beginning of this article, there was also this problem of inhabitants being treated as secondary considerations compared with the structures to be built.
- 17 Thus the inhabitants who were displaced (or more correctly "driven out") by the construction of the Aigle dam from the villages of Nauzenac and Saint-Projet and the hamlets of Vernejoux, Lanau, Aynes, La Ferrière, le Moulinot and la Graffouillère received no proposal for a new site where reconstruction could take place – and this despite the fact that Nauzenac boasted a thriving school and church at that time. Apart from items such as doors and windows that inhabitants were able to salvage, everything else was lost when the area was flooded. Drainage operations are the occasion for a real pilgrimage among former residents who return to watch different parts of the Saint-Projet monastery and village of Nauzenac reappear almost intact a few kilometres downstream of the dam (Faure, in press a) et b)).
- 18 The situation was almost the same 15 years later, in 1952, in Ubaye. Ubaye was then a village of about ten shops and 133 inhabitants, most of who said very little in the public inquiry conducted in that year. The only reaction has already been noted: the need for restoration of transport links flooded by the reservoir. In September 1955, the communal property of Ubaye was sold to EDF. The proceeds from the sale of this property, not included in the expropriation zone, were shared among the inhabitants. The village of Ubaye was finally destroyed in July of 1959, the year of the beginning of the flooding of the Serre-Ponçon dam (Bodon, p. 285).
- 19 In the Dordogne and Ubaye valleys, oratories were constructed by the Christian faithful above the artificial lakes created by the dams of Aigle and Serre-Ponçon. Every year, on July 22, the feast of Saint Mary Magdalen, the former residents of Ubaye, in the Alps, and a group from Corrèze in the Massif Central participate in processions to pray at these new places of worship in memory of the life that disappeared from these villages.
- 20 For the Bort-les-Orgues dam, the village of Port-Dieu was reconstructed thanks to the stubbornness of its former inhabitants, as witnessed by the lengthy correspondence between the municipal council and EDF, and its numerous threats to present a

collective resignation to the Prefect. Their insistence led to the creation of an Inter-ministerial Commission on methods of land consolidation in the village of Port-Dieu, in August 1948. But the official declaration of the creation of the new municipality of Port-Dieu at Confolent in 1950 came too late. Many residents had already left to go elsewhere, namely to Ussel some 30 kilometres away on the Corrèze plateau, where they found a place to resettle not too far from their beloved valley. The 120 inhabitants expected by the Municipal Council were reduced to only 40, although more than 450 people had left the Bort valley. EDF agreed to build a chapel for Confolent-Port-Dieu in April 1949, and exhumation and reburial operations were organised. The mayor of Confolent-Port-Dieu, who was only 16 years-old at the time, described how an oxcart was used for these operations, as there were no lorries or tractors available in this period just after the Second World War (Faure, in press a) et b)).

- 21 In Tignes, the transfer of the contents of municipal and community buildings was carried out by force. The residents came up against the same difficulty as those of the Bort valley in trying to find out where the administrative centre of the municipality would be rebuilt.
- 22 But for them the stakes were considerably greater, since a whole way of mountain life would be uprooted without any alternative that would provide them with a similar situation. There were two possibilities for Tignes, these being to rebuild either at Hameau des Boisses or in the area of alpine pastures. The first solution would allow inhabitants to remain near their old village, or more exactly on the slopes above Lake Chevril, created by the large dam. The second solution involved a gamble on the future in that it relied on the development of tourism, and in particular winter sports, as had been the case for their neighbours in Val d'Isère. The village would be moved seven or eight kilometres, to a plateau of alpine pastures. For the residents, however, whatever the site chosen, the abandoning of their fertile valley and its production activities would mean the end of pastoral farming which had provided most of them a living. The bi-seasonal activity where winter stock-rearing with hay in the valley alternated with summer transhumance in the alpine pastures would be definitively wiped out by the future Lake Chevril. The older residents also feared that the community would become dispersed (Varaschin, 2001, p. 151). For those who are displaced as part of a dispersion movement (as opposed to those who settle in a rebuilt district or village), the loss of community life leads to a loss of status and cultural identity. The marginalisation caused by this form of displacement is a sensitive subject for anthropologists, who recommend keeping populations together when moving them (Scudder, 2005, p. 71; Cernea, 2000, point 4 of the Impoverishment Risks and Reconstruction (IRR) model). This prospect of dispersion, which was difficult to accept for most inhabitants of Tignes, encouraged denial of the reality of the forthcoming flooding of the valley. The resistance of residents was reinforced by the incoherence and lack of transparency in the management of land expropriation. At the moment of flooding, a large proportion of those whose property had been expropriated had still not received any compensation and did not know where to go.
- 23 The announcement about the reconstruction of the administrative centre was late in coming. Only a few months separated the government decision to rebuild in the hamlet of Boisses and the announcement of flooding. A series of problems followed, bearing witness to the malaise and exasperation of the residents of Tignes: transfer of the archives was carried out under the threat of a battalion of riot troops (CRS), in the

presence of the prefect and sub-prefect (Bodon, 1997, p. 364). The transfer of graves became a very sensitive question and was only completed several days after the start of flooding (Varaschin, 2001, p. 207). The evacuation of families continued for more than a week afterwards. Obviously, Tignes is a negative example of the social impact of population displacements caused by major infrastructures.

- 24 Compared with earlier examples, the village of Savines provides a more positive picture of population displacement. Reconstruction of municipal and community buildings in Savines, like the expropriation of houses, buildings and land, was carried out according to standards which would be acceptable today, apart from a few reservations (the absence of any followup of displaced populations). Almost a thousand people had to be moved, which is three times more than the population of the village of Tignes, but EDF and the government had learned from earlier mistakes. The municipal council prepared the reconstruction of the administrative centre ahead of time, as well as the transfer of community buildings and the creation of an industrial zone, seeking to ensure the economic renewal of the municipality (Bodon, p.230). Transfer of the cemetery was decided on two years before the flooding of the Serre-Ponçon dam. The church in Savines was dynamited on 3 May 1961, an event captured by photos in the press, one of which shows the priest recovering the cross from the ruins.
- 25 Among other things, locally elected officials were also responsible for a major innovation with the building of a residential estate allowing expropriated inhabitants to be rehoused together in a new district. This improvement, together with more generous, fair and transparent individual compensation payments, greatly enhanced the French version of "involuntary population displacement".
- 26 The requirements for resettling the expropriated population were met before the start of flooding in December 1959. Similar conditions were found at Salles-sur-Verdon, where two serviced plots were offered by departmental services and the town hall to inhabitants who suffered expropriation due to the dam at Sainte-Croix between 1971 and 1974. Although the transparency of the operation is still questioned today, those who bought these plots have been able to build up property assets of quality, benefiting from the attractive lending rates of that time (interview conducted by A. Faure at Salles-sur-Verdon with Mr Lions, 21 August 2006).

Expropriations: housing, farms and activities

- 27 According to current international standards, the expropriation process involves identifying different types of land rights, under formal and non-formal law (absence of a legal title is not an obstacle to receiving compensation and assistance), and in awarding compensation in a concerted, equitable and transparent manner, before the start of works. Those affected are offered transfers to other land as near as possible to the original land and of equivalent quality, and preferably with financial compensation when the communities involved are dependent on natural resources as capital. Private housing and buildings are replaced and where possible improved. Resettlement agencies provide households with assistance in the form of transport and/or financial compensation. The means of existence of those persons displaced must be sustained for a certain number of years to ensure that their economic future is at least as good as that before the project (policies of the World Bank, the African Development Bank, and the Asian Development Bank).

- 28 Over time, the situation of the victims of expropriation in the Dordogne valley has clearly improved, from the disarray of the first enforced displacements begun in the 1930s with the creation of the Aigle dam, at the start of the procedures studied here, to the completion of these, 30 years later when the Sablier d'Argentat dam was built. The improvement has been due to changes in regulatory procedures and to the organisational capacity of local personalities and elected officials. For the Sablier d'Argentat dam, which was much smaller than earlier structures, only six properties were affected and a single house destroyed. The shape of the dam was designed to spare the hamlet of Doustret, which still exists. The chateau at Gibanel lost 12 hectares of agricultural land but was still standing on the edge of the lake in 1956 at the time of flooding. The family that bought it from the de Combarels transformed the area surrounding the château into a campsite.

Equitable compensation payments with transparent procedures

- 29 From the description of events in Tignes, it can be seen that expropriations took place in a climate sadly lacking in transparency, confidence, dialogue and clear decisions regarding compensation and infrastructures for resettlement. There were also reports of attempts at land speculation by those responsible for expropriations: local residents spoke of "despoilment (translation)" (Bodon, p. 393). Three years after the reservoir was flooded, those whose property had been expropriated had still not received any compensation, but force was used to expel them. Local reaction led to sabotage operations, which were then countered by battalions of anti-riot police sent from Grenoble in the summer of 1946. The very poor relations between EDF and local residents were reflected in the early occupation of land at Chaudanne by EDF personnel and their equipment during the night of 11/12 May 1948 (Bodon, p. 210), dramatic events that were reported in the press. The intense struggle of the local population against the dam and the way in which the government dealt with the victims of expropriation remain a bitter memory for many residents (interview conducted by A. Faure in Tignes with writer and poet José Reymond, 4 August 2002). This experience has been recorded by history as an operation that overall was very poorly conducted and is an example of "bad practice".

Compensation on the basis of replacement costs

- 30 Another factor that had a profound effect on expropriatees was the application of an "obsolescence coefficient" for the evaluation of buildings. Varaschin (2001) mentions a study that "defines a value for new reconstruction modified by a coefficient of obsolescence varying from 0 (new or under construction) to 90 (ruins)" (p. 72). This principle was applied to the Aigle dam project, and was still used 35 years later, in 1970, for evaluating compensation payments at Salles-sur-Verdon for the construction of the Sainte-Croix dam (interview conducted by A. Faure at Salles-sur-Verdon with Mr Lions, 21 August 2006). This coefficient of obsolescence results in expropriation compensation that limits the possibilities of building elsewhere and is contrary to current principles.
- 31 A comparison may be made between the exemplary experience of the expropriatees of the Bort-les-Orgues dam project and the simultaneous expropriation operation at Tignes. At Bort, local residents are satisfied today with the compensation payments

that were negotiated by the Group of Expropriatees, but they still regret the loss of the rail link with Paris that has left them with a feeling of having been deceived in the cooperative approach adopted by inhabitants. Even among the third generation after expropriation took place there is still this deep-seated belief.

- 32 The expropriatees of Savines were generally treated correctly, even though there were a few strikes concerning compensation payments. Compared with Tignes, the egalitarian policy adopted with regard to compensation payments at Serre-Ponçon was more efficient and amounts were more generous in both quantity and quality, providing for a wider range of possible damages. Most agreements were settled out-of-court, providing farmers with a more comfortable nest egg than at Tignes, where the majority of disputes were settled before the arbitration committee (Bodon, p. 402).

Vulnerability, joint ownership, attachment to the local area

- 33 The examples cited above show the particular vulnerability of farming populations whose identity is anchored in the local area. For the villages submerged by the Aigle dam, the analysis of archival documents reveals that inhabitants were disoriented and incapable of defending themselves in the face of such adversity. Individually they enlisted the help of solicitors in seeking to obtain compensation payments that took years to be paid. The question of joint ownership of land and property for the villages of Nauzenac and Port-Dieu (Aigle and Bort dams) made expropriation a delicate issue because of identifying the owner to whom the payment would be made. Owners sometimes lived hundreds of kilometres away, in the Paris region, while the residents were often widows. They were forced to leave, losing their ties and network of social contacts. There were as many as 13 widows among the 63 households expropriated in Port-Dieu. Solicitors' letters bear witness to the complexity of these situations. The number and repetitive nature of the letters kept in the archives also point to the slowness of the compensation procedure (Faure in press).
- 34 This essential question of joint ownership and the identification of the person to whom compensation payments are to be made still remains an aspect of expropriation that is poorly dealt with at the international scale, as evidenced by operations conducted in China, Indonesia, India and Madagascar (World Bank, 2004). In cases where land has been replaced by monetary compensation, analysts have observed that difficulties arise when the money is paid only to the male head of a household (Scudder, 2005, p. 31). In 1950, the French authorities introduced an adjustment for those persons who owned nothing and did not benefit from the expropriation law. For such residents, they created a personal eviction indemnity payment (Varaschin, 2001, p. 87). This law benefited the expropriatees of Savines more than those of Tignes (Bodon, 1997, p. 285). Similarly, international standards impose the definition of "vulnerable populations". These groups of persons are defined in relation to each operation of population displacement and in most cases include older residents and female heads of household, with priority given to those with young children.
- 35 Bodon stresses the question of identity in the relationship between the farmer and his land for the villages of Tignes and Ubaye, "a quasi-mystical link that is not broken by emigration (translation" (Bodon p. 401). The same is true for all the sites submerged by the creation of the Aigle dam and for the villages de Miallet and Port-Dieu in the case of the dam at Bort. She also underlines the difference between the tradition of

"maintenance" migration in Tignes, where the reference group remained on site, and "rupture" migration in Savines. Some land was kept, giving owners a link with their roots, with some sense of identity. While the village of Savines was synonymous with a place of work, that of Tignes was a place of birth. It might also be added that people were buried in the place where it was felt that they had their roots. This distinction can help in understanding the strong emotions provoked by the enforced displacement of farming villages with strong ties with the land. Anthropologists have often observed such links in autochthonous societies, characterised by myths, ancestral cults and spirits of the land as with the Bissa people before the Bagré dam was built. (Faure, 1996, p. 157 to 200). The same identity can be found in Madagascar, where the cultural link with the land (tanindrazana) and graves makes expropriation operations particularly delicate, and much more so than in villages that have experienced a "rupture" situation. It is therefore indispensable to carefully prepare expropriation operations by following good practice: establish a climate of trust by transparency and fairness concerning the amounts of expropriation compensation and associated payments. A system for dealing with complaints and disputes must be set up following consultation with representatives of the local population to ensure that it is acceptable to them. Fairness and transparency are principles that help reduce feelings of injustice, even if they never reduce the feelings of helplessness and of being uprooted experienced by those persons forced to move from places where they have developed strong ties and identities with the land and local area.

Reconstructing the means of existence

- 36 Current international policies on forced displacements insist on the importance of reconstructing the means of existence of the displaced populations, whether they be owners or not (Scudder, 2005). Resettlement Plans include complex programmes to reconstruct activities, with job creation, the availability of credit, support for the acquisition of equipment, professional and craft training courses, and a system to monitor the effectiveness of actions taken (SFI, 2002).
- 37 Fifty or sixty years ago in France, the authorities did not have such a vision. However, elected officials at both the local and national level, as well as prefects, stressed the uncertainties of inhabitants concerning the loss of their activities and jobs because of the disappearance of factories and the fear of their farms becoming non-viable. But the decisionmaking authorities tend to consider only the loss of farm buildings and private houses, adopting a rather simplistic vision of agriculture. EDF nevertheless proposed a resettlement programme for farmers in the mountain village of Tignes, with a sort of "land for land" formula: the Resettlement Project in La Crau. The farmers, however, doubting the viability of the project, did not take up the offer (Bodon, 1997, p. 392).
- 38 Today, following "best practices" would involve preparing a very good socio-economic database that includes detailed facts and figures and a qualitative description of all the systems of production and the diversity of the means of existence. It is important that project authorities understand, from a socio-economic study, what the residents to be displaced do, what their values are and what lifestyles they have, including their strategies for survival and their "safety nets" in the event of problems (Scudder, 2005, p.87). At the time, such a tool was sadly lacking everywhere, and efforts to provide follow-up on measures adopted remained limited. Bodon notes, p. 24, that "officials of

EDF's Equipment Department, in the case of Tignes, conducted a follow-up survey over a three-year period (1953 to 1956) of families who had left the municipality following construction of the dam". There are no documents of this type for Serre-Ponçon. No source provides information on the fate of 133 expropriatees from the village of Ubaye, which was entirely submerged and never reconstructed. Thus no information exists on where they resettled, on changes in their working lives, or on their social reintegration. Bodon has conducted an a posteriori assessment of the situation for the farmers who remained in Tignes and Savines, based on the population censuses of 1954 and 1962 (Bodon, 1997, p. 414-420). Nothing is known of those who left the area, who made up by far the largest group. According to current international standards, a Resettlement Plan, with a programme of actions and related budget, must be submitted by the government before it can receive any credit agreement from the international development banks.

- 39 In addition to the purely material considerations arising from forced displacements, it may be noted that, for most sites, memories come back to themes that are both lyrical and unchanging. Emphasis is put on the heroic position of stubborn residents who remained in their houses until the end, despite their water and electricity being cut off, defying the order from the prefecture prohibiting access to the site. All those who witnessed the events speak with emotion about the dynamiting of the houses and their destruction by bulldozers. Instead of these expeditious solutions, local populations prefer the solution of flooding everything as it is, as happened with the villages of Saint-Projet-le-Désert and Nauzenac, submerged by the reservoir created following construction of the Aigle dam. The older residents of these villages, who look back nostalgically to the time before flooding, recall a verdant landscape, changing with the seasons and traversed by a babbling stream. Everyone laments its transformation into today's lake with its still, silent waters.

Cultural and religious heritage

- 40 Cultural heritage includes places that are important from a ritual point of view, sanctuaries, objets d'art and monuments, archaeological sites, historical and religious sites. Today, the Resettlement Plan documents all the measures to be taken to protect, relocate and re-establish an area's cultural heritage. The displacement of cultural objects is carried out in consultation with municipalities (SFI, 2002).
- 41 For the four dams studied in this article, the technical options chosen resulted in levels of flooding that enabled four remarkable elements of the cultural heritage to be salvaged, but had informed expertise been used even more might have been saved. The chapel of Saint Michel remains on its mount, now an island just above the maximum level of Lake Serre-Ponçon at 780m altitude. The three other architectural works saved are on the edge of the Dordogne, in the departments of Corrèze and Cantal: the Château at Gibanel, a former fortress rebuilt in the 17th century, was spared by the Sablier dam. EDF also chose to spare the 15th century Château of Val, an imposing fortress surrounded today by water on three sides which attracts between 300,000 and 400,000 visitors a year. Every ten years when the dam is partially drained, the fortress reclaims its original position as a feudal chateau dominating the entire valley. The last site that was saved is the chapel des Manants together with its presbytery, situated on the rocky promontory of the village of Port-Dieu (Faure, in press).

- 42 The displacement of cemeteries and the reconstruction of places of worship were among the obligations of the national electricity authority during the post-war period. EDF gave families the possibility of choosing where they would like to transfer the remains of their deceased relatives, paid for the costs of exhumation, transport, and a temporary place of rest (at funeral homes in Tignes and Serre-Ponçon) and lastly built definitive sites for them at Ubaye, Savines, Tignes-les-Boisses and Confolent-Port-Dieu.
- 43 The reservoir of the Aigle dam covered the church of Nauzenac, that of Saint-Projet and the chapel of the Sœurs de Combe-Noire; the latter building had been renovated at the end of the 19th century by Father Serres but had fallen into ruin again. More especially it had submerged the monastery of Saint-Projet-le-Désert, built in the 15th century by the Comte de Ventadour, with cloisters and a convent, and situated in a landscape of austere and striking beauty. The church and convent were still in use at the time of flooding in 1945.
- 44 The lack of real interest shown by the authorities for these cultural sites, considered to be insufficiently frequented, resulted in the disappearance of a remarkable religious heritage in the Dordogne valley. The sanctuaries in this valley were considered one by one, as each dam was commissioned and flooding took place, but sadly the authorities neglected to consider the view of the rich religious heritage of this valley as a whole.
- 45 At least one of the abbeys (the former Cistercian monastery of Valette) could have been saved if the profile of the dam of Chastang had been slightly changed when it was flooded in 1951, since the foundations are visible on the edge of the lake as soon as the level falls a little. EDF has had the buildings destroyed to avoid any accidents.
- 46 In order to preserve other sites of architectural interest, it would have been necessary to have made different choices regarding the sites and heights of the dams. Considering the number and quality of the spiritual places lost below the waters of the lakes created on the Dordogne, questions arise concerning the ease with which this religious and architectural heritage was submerged. In order to build the Marèges, Chastang and Aigle dams, gorges that could have been developed differently were flooded over a period of 20 years and a distance of 70 kilometres, destroying three groups of religious buildings of considerable importance (the monastery at Saint-Projet and the two Cistercian abbeys at Valette and Val Beneyte) and two of secondary importance (Combe-Noire and Nauzenac). The planners built two chapels of mediocre architectural interest at Aynes and Port-Dieu-Confolent.
- 47 If this type of cultural heritage in the form of historical and religious buildings still in active use were to be threatened by dam construction today, planners would be compelled to carry out development in a different way. This part of the Dordogne valley could have been listed for preservation because of its striking landscape and its remarkable historic past. The opinions of experts and a public debate could have resulted in other important measures being implemented, such as modifying the technical choices and the position of the dams to give greater respect to the state and role of historical and cultural sites in this region.

Conclusion

- 48 Knowledge of the French experience of the forced displacements caused by these four dams can provide lessons for today's planners. In particular, five aspects of this

experience can help improve the preparation stages of large dam projects. First, it shows that consultation with local populations is essential in taking decisions if they are to be effective in the long term, and that this consultation must be undertaken at the earliest stage possible. Second, it is important to rapidly re-establish road and rail links. Eliminating them or delaying their re-establishment hinders reconstruction of the economy and local community relations. The French authorities had gambled far too soon on the development of road transport to replace the railway, or they minimised the importance of the movement of goods and people in the organisation of these rural societies. Third, it may be noted that the disclosure of an equitable scale of expropriation compensation and other payments helps establish relations of trust. Compensation should be sufficiently generous to enable the relocation, resettlement, and reconstruction of housing and activities under good conditions. Fourth, the reconstruction of a host village, the site of which should be announced as soon as possible, provides inhabitants of the bottom of the valley with a comforting prospect of resettling close to their former place of residence. They will be able to conserve their neighbourhood network, which is particularly important for the most vulnerable people. Today, in addition to resettlement operations, it is also important to organise a development programme so that new communities (including displaced persons, host communities and people who have come to the area to work on the building project) are accompanied over a certain number of years to ensure the sustainability of their economic and social readjustment. In the past, such follow-up and support measures did not exist. We do not know how those displaced during construction of these French dams managed to reorganise their lives elsewhere once they had left their submerged valleys. Fifth, current standards imposed by international organisations provide all the measures and tools that help, and would have helped, to alleviate the immense social trauma that the flooding of a valley by a large dam represents. These social policies represent a remarkable step forward for sustainable and equitable development.

- 49 The French experience of the impact of large dam construction shows that frustration is still felt, some sixty years on, by succeeding generations. The social representation of a dam, its identity from a human point of view, will always remain negative when "involuntary" displacements are poorly prepared and poorly executed. History provides ample evidence of the need to take into careful consideration the social impact of the construction of large dams.

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ABSTRACTS

With the passage of time and insights from a number of historical studies it is now possible to take a look back at the way rural populations in France were displaced for the construction of large dams during and after the Second World War. Today, international standards relating to the social implications of dam development projects are imposed on dam builders by both governments and financing institutions. However, in the absence of these international social standards, how did population displacements take place in the past? This paper provides a retrospective look in the light of the current "protection policies" developed by the World Bank and the Asian Development Bank. Retrospective case studies are based on research conducted in the Alps by Virginie Bodon on Tignes and Serre-Ponçon for her doctoral thesis in history (1999) and on the book by D. Varaschin on Tignes. The author uses her own studies on the impact of the large dams of the Upper Dordogne, based on research conducted in departmental and municipal archives and on interviews with those who witnessed the implementation of displacement policies and with their children (1998-2005). The author draws on her experience as an anthropologist for the World Bank to analyse the ways in which these displacements were actually carried out. The forced displacements, euphemistically referred to as "involuntary resettlement" in discourses on development, took on increasing notoriety with the international energy crisis. The dams gave rise to an international debate on their social and environmental impacts, a debate continued by the World Commission on Dams. Today, when financing has again become available for the construction of new dams throughout the world, it seems opportune to provide some insights into the social implications of large dam development projects based on the experience of France, a country that has been, in many respects, one of the most innovative in the implementation of such projects.

Le recul du temps et les études historiques permettent de porter un regard a posteriori sur la façon dont les populations rurales françaises ont été déplacées pour la construction des grands barrages pendant et après la seconde guerre mondiale. Aujourd'hui, des normes internationales sont imposées aux constructeurs par les gouvernements et les financeurs. En l'absence de ces normes sociales internationales, comment les déplacements se sont-ils passés ? Le regard est porté à partir des « politiques de sauvegarde » actuelles développées par la Banque Mondiale et la Banque Asiatique de Développement. Les études de cas rétrospectives partent des recherches menées dans les Alpes par Virginie Bodon sur Tignes et Serre-Ponçon pour sa thèse d'histoire (1999) ainsi que le livre de D. Varaschin sur Tignes. L'auteur utilise ses propres études sur les grands barrages de la Haute-Dordogne, menées dans les archives départementales et municipales, et les enquêtes directes auprès de témoins et de leurs enfants (1998-2005). L'expérience de l'auteur comme anthropologue pour la Banque Mondiale permet d'analyser les façons dont ces déplacements ont été menés en pratique. Ces déplacements contraints, appelés « involuntary resettlement » dans un concept euphémistique des discours du développement, prennent une importance de plus en plus notoire avec la crise internationale de l'énergie. Les barrages ont provoqué un débat international sur les impacts sociaux et environnementaux, relayé par la World Commission on Dams. À l'heure où les sources de financement sont à nouveau mobilisées pour accroître la construction de nouveaux barrages à travers le monde, il paraît utile de fournir des connaissances sur un pays qui était à l'époque l'un des plus innovateurs dans la construction de ces aménagements.

INDEX

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