



THE ROMANIAN ACADEMY
« Francisc I. Rainer »
INSTITUTE of ANTHROPOLOGY

**TAMING THE POSTSOCIALIST NATURE: FLOODS, LOCAL STRATEGIES AND
NATIONAL POLITICS ALONG THE LOWER DANUBE**

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Project director :
Ștefan Dorondel, Ph.D.,
Senior Researcher

– Final report –

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List of the research team members who participated in Stage IV, 2016 :

Stefan Dorondel, Ph.D. – project director
Prof. Iulia Armaş, Ph.D. – senior researcher
Mărioara Rusu, Ph.D. – senior researcher
Stelu Şerban, Ph.D. – senior researcher
Violeta Florian, Ph.D. – postdoctoral researcher
Cristina Posner, Ph.D. – research assistant

This report comprises two sections. In the first section we report the activities carried out in 2016 (January-September), while the second section is represented by the Final Report of the entire research project.

Objective 1: Complex spatial analyses in the test sector of the Danube.

Activities: identification of the Danube's floodable corridor at different flows, the performance of the cartographic support for participatory analysis and the identification of the vulnerable villages and agricultural areas.

Within this objective we carried on the short-term field research in villages across the former Danube floodplain and participated as observers in expert seminars and conferences (e.g., a seminar organized by WWF in the city of Giurgiu concerning the ecological restoration of the Danube Valley or a conference organized by the Romanian Academy on the same topic). We interviewed both local inhabitants and local authority representatives (mayors, deputy mayors, commune/town hall secretaries) and we also put together the participatory mapping of the Rast commune, Dolj county. There we discussed about the latest major flood of 2006 which affected the villages of Rast and Bistreț (where in 2014 Oana Ivan conducted a 5-month ethnographic research). An important aspect emerged from this research and which we did not consider initially, when we drew up the research project in 2012, is the issue of national and international Danube Valley ecological restoration projects. It is the emergence of this issue among the locals and at the level of the local and county authorities that made us extend our research to the Danube Delta so we could see how exactly an area already ecologically restored looks. This research extension is significant and we provide more details in the *Good Practice Guidelines* intended for the decision-making political factors. From the previous ethnographic research (2014) and the short-term research (2016) and also from the application of participatory mapping in Rast we learned that people are not primarily worried by floods but by the infiltration of water in agricultural lands from the floodplain. The most exposed areas are those that once were lake bottoms – the participatory map of Rast but also that prepared by Cristina Poser at Gostinu (Giurgiu county) clearly show this (see the project's website for the map). The most vulnerable areas are rather the agricultural, not the housing lands.

Objective 2: The identification of complex human-environment interaction patterns. Activities: summarization of results and the ecological and socio-economic validation of the identified patterns.

We analyzed and summarized field-gathered data by means of various methods: ethnographic, geographic (participatory mapping), sociological (questionnaires), statistical (processing and interpretation of statistical data), and historical (county and institutional archives, such as the archive of the Băneasa - Giurgiu Institute of Research and Technological Engineering for Irrigation and Drainage – ICITID, or that

of the National Research and Development Institute of Land Improvement of Bucharest – ISPIF who own plans concerning the changes in the category of use of the Danube floodplain lands throughout the socialist era). We noticed the fact that today, due to the strength of the levees, people no longer fear floods. But, as we noticed both in Romania and in Bulgaria, these levees are poorly maintained and present holes made by animals (especially moles and jackals) and are ruined by vehicles. Also, we noticed the return of some pre-socialist practices, such as inbreeding domestic pork with boar „in wetland”, on a relatively extended scale as well as the extension of temporary dwellings in the swamps. The fear of floods is no longer topical but the riparian population, especially the poor, face economic hardships due to the water infiltrations ruining their plantations in the former floodable areas. Conversely, farmers with large areas but also with political connections are not very much afraid of these floods (that affect 10-30% of the land belonging to the communes we researched) since their income is secured through agricultural subsidies.

But at the same time, the cultivation of cereals in drained swamps is seen as a kind of agricultural insurance because in droughty years the yield is very good in swamps. Such yield is ensured by the high soil humidity and by the fact that the groundwater level is quite high in those areas.

Objective 3: Result dissemination. Mobilities at international research institutes, participation in national symposia with 3 oral presentations and in international symposia with 2 oral presentations, the publication of 2 IDB papers and the drawing up of a guide of sustainable solutions intended for political decision-making factors.

Mobilities at international research institutes took place only partially due to the lack of funds. Ștefan Dorondel spent 11 days at the Boston University being invited by the Center for African Studies and the Center for Finance, Law and Policy that also supported financially this mobility, and Ștefan Dorondel and Stelu Șerban spent a week at the Environmental History Department of the Stockholm Royal Institute of Technology.

The team members held the following oral presentations at national symposia:

Stelu Șerban, *Viață cotidiană și instituții modernizatoare la granița româno-bulgară de pe Dunăre. (sfârșitul secolului 19 – primul deceniu al secolului 20) / Daily life and modernizing institutions at the Romanian-Bulgarian Danube border (end of the 19th century – first decade of the 20th century)* presentation held at the seminar of the Institute for Southeast European Studies, June 14, 2016.

The team members held the following oral presentations at international symposia:

Stefan Dorondel and Stelu Şerban, *The Political Ecology of Levees: State, Local Communities and the Socialist Transformation of Lower Danube*, paper presented at **Undisciplined Environments. International Conference of the European Network of Political Ecology**, Stockholm, Sweden, March 20-24, 2016.

Stefan Dorondel and Marioara Rusu, *Reinventing Land Mortgage in Postsocialist Europe. The Romanian Case*, paper presented at the workshop **Mortgage Across Cultures: Land, Finance and Epistemology**, Boston University, Boston, April 14, 2016.

Course held by Stefan Dorondel as visiting lecturer at the Regensburg University, the Doctoral School of the Regensburg University and the Ludwig Maximilian Universität Munchen, June 8-10, 2016 entitled *Environmental Aspects of Postsocialist Land Relations: A Case Study from the Lower Danube Floodplain*.

Mărioara Rusu, Violeta Florian, poster – *Socio-economic vulnerability to climate change of the rural communities in the Danube Region*, International seminar RUP 2016-2017, organized by the Institute of Agricultural Economics of the "Costin C. Kirişescu" National Institute of Economics Research of the Romanian Academy and the "M.I. Dolishniy" Institute of Regional Research from the Ukrainian National Academy of Sciences, September 01-04, 2016, Vatra Dornei.

In print:

1. Stefan Dorondel, Mărioara Rusu, Reinventing Land Mortgage in Postsocialist Europe The Romanian Case, in P. Shipton and D. Rodima-Taylor (eds.), *Mortgage Across Cultures: Land, Finance and Epistemology*, ASC and CFLP Research Report: Boston University, 2016.
2. Mărioara Rusu, Sustainability of Agricultural Sector in the Danube Region, in *Agricultural Economics and Rural Development*, Year XIII, no. 2, 2016, ISSN: 1841-0375, (IDM journal).
3. Posner C (2016): Participatory research methods applicable in geographic studies. *GeoPatterns*, Vol. I, Issue 2

The following papers are in the peer-review stage:

1. Stelu Şerban, Adaptive governance on the Danube. Bulgaria and Romania around the year 1900, accepted for review by *Environment and History* (ISI journal, I.F. 0.811) (the paper's ID in the on-line submission system is 1290).
2. Ştefan Dorondel, Stelu Şerban, Daniel Cain, The Play of Islands: Danube Dynamics and Border Establishment in Modern Southeast Europe (1830-

- 1900), accepted for peer-review by *Environment and History* (ISI journal, I.F. 0.811) (the paper's ID in the on-line submission system is 1319).
3. Stelu Șerban, Techno-nationalising the Levees on Danube. Romania and Bulgaria Alongside 20th century, forwarded for peer-review at *Technology and Culture* (The Johns Hopkins University Press, ISI journal, I.F. 0.299).
 4. Ștefan Dorondel Stelu Șerban, Dissuading Large Agricultural Investors: Neoliberalism and Community Mobilization in Bulgaria, accepted for peer-review within a special issue edited by Oane Visser, Stefan Dorondel, Natasha Mamonova and Max Spoor entitled *Post-socialist Smallholders: Silence, Resistance and Alternatives*, in *Canadian Journal of Development Studies* (ISI journal, I.F. 0.463).
 5. Oane Visser, Stefan Dorondel, Natasha Mamonova and Max Spoor, Introduction to Post-socialist Smallholders: Silence, Resistance and Alternatives, accepted for peer-review in *Canadian Journal of Development Studies* (ISI journal, I.F. 0.463).
 6. Ștefan Dorondel, Veronica Mitroi, Fishermen as Outlaws: Nature, State and Conservation in the Danube Delta, in Claudia Leal, Matt Kelly, Wilko von Hardenberg (eds.), *Nature State*, Routledge, London and New York (Environmental Humanities Series) (accepted for peer-review)
 7. Hanger S., J.vLinnerooth-Bayer, A. Lorant, S. Surminski, Iuliana Armaș, Cristina Posner Nenciu, R. Ionescu, Insurance, Public Assistance and Household Flood Risk Reduction: A Comparative Study of Austria, England and Romania, accepted for peer-review *Risk Analysis* (ISI journal, I.F. 2.225).

The following papers are being prepared as part of the project (Work in progress) and will be sent for peer-review by the end of this year:

1. Ștefan Dorondel, Stelu Șerban, Marian Tudor, The Life of Nature Conservation Projects in the Anthropocene. A Case Study from the Danube Delta; it will be forwarded for peer-review at *Global Environmental Change*, (ISI journal, I.F. 5.679).
2. Ștefan Dorondel, Cristina Posner, Postsocialist Agriculture vs. Nature: State, Infrastructure and Land Improvement in the Lower Danube Floodplain, in *Journal of Peasant Studies* (ISI journal, I.F. 4.311).

The following papers are being prepared as part of the project and will be sent for peer-review next year:

1. Ștefan Dorondel, Stelu Șerban, Materializing the State. Agricultural Infrastructure and the Ruins of Socialism in Southeast Europe; it will be forwarded for peer-review at *Political and Legal Anthropology Review* (ISI journal, I.F. 0.775).
2. Ștefan Dorondel, Cristina Posner, Iuliana Armaș, A Political Ecology of Lower Danube Banks Erosion; it will be forwarded for peer-review at *Nature and Culture* (ISI journal, I.F. 1.931).

In progress:

Ștefan Dorondel, James C. Scott (eds.), *Living Things: Floods, State and the Technologized Rivers of the World* (the title is not final), the manuscript will be sent at Yale University Press.

The Guide of sustainable economic and environmental practices for the former floodplain of the Danube was completed (see the project's website) and will be sent both to interested institutions in Romania (Romanian prime minister, the minister of the Environment and the minister of Agriculture, members of the Romanian Academy who are interested in the Danube floodable area, WWF Romania) as well as to foreign institutions (the Environment Commissioner of the EU, Danube:Future, Institut für den Donaauraum und Mitteleuropa Viena, World Dams Commission).

FINAL REPORT

The research project had three major objectives:

1. Identification of the factors of change in the use of land and in agricultural practices in the floodplains protected against floods by high levees and the land of which was drained and entirely transformed into arable land.
2. The study of the local and regional political strategies employed in fighting against flood consequences (town/commune halls and public agencies at county level).
3. The study of the civil society's reaction to floods at the local, county and national level.

The results of our field research which we published in previous scientific reports (for the years 2013, 2014, 2015) show that major changes occurred in the use of land not only through the construction of levees, the carrying out of drainage works, land improvement works, all performed throughout the socialist era, but also the postsocialist period due to the state's withdrawal from the economy. The outcome consisted in a significant agricultural infrastructure decline and the transformation of polders either in pastures or in cultivated areas. Furthermore, the fisheries which flourished in the socialist era were turned into pastures or agricultural lands. In fact, such transformation was a large phenomenon in the postsocialist era and had a large social impact since the locals who used to be involved in agricultural, animal husbandry and fisheries activities now barely make a living out of subsistence agriculture or pensions.

Originally, we designed our work so as to cover only the postsocialist era, but we needed to extend toward the socialist period since our informants would always bring the discussion to that period. Moreover, one cannot talk about the postsocialist period and the consequences it had on land use without reference to the deep

transformations that took place in the “swamp” area (as the locals use to call it). For certain topics, such as the construction of the levees, we took an even further step, into the presocialist era, because the Danube floodplain was amply modified by the embankment works commenced in 1928 by the engineer Greceanu (in the Gostinu area). Some postsocialist economic practices, for instance the exploitation by local families of swamp and eyot forests or the animal husbandry (swine, cows, horses) “in the swamps” („pe baltă”) actually constitute a return to the presocialist practices (more details in S. Dorondel, S. Șerban, D. Cain, *The Play of Islands: Danube Dynamics and Border Establishment in Modern Southeast Europe (1830-1900)*, accepted for peer-review by *Environment and History*).

The local strategies aimed at fighting against the floods are basically nonexistent. The locals rely to the largest extent to the levees’ strength, in spite of the fact that they are in an ever deplorable condition (animal-made holes, subsidence due to vehicle traffic, etc. - see photos on the website). The people’s belief in the strength of the levees was tested at the 2006 floods, when seemingly the culprit that penetrated them at Bistreț was not the force of the water, but the political decisions and local economic interests (more details in S. Dorondel, O. Ivan, *Floods, Power and Environmental Justice along the Danube Floodplains in Postsocialist Romania*, a presentation held at the conference organized within the project ‘Floods, State, Dams and Dykes in Modern Times: Ecological and Socio-economic Transformations of the Rural World’, Bucharest, June 18-20, 2015; this presentation will be included as a chapter in S. Dorondel, J.C. Scott, *Living Things: Floods, State and the Technologized Rivers of the World*). But at the same time the riparian people are afraid of the rapid erosion of the Danube banks which is both a physical and a socio-economic process which brings the Danube water near the base of the levees. And this fact adds to the weakening of the levees which are meant to provide protection against floods and contributes to an environmental risk increase for the Danube Valley inhabitants (more details in S. Dorondel, C. Posner, I. Armaș, *A Political Ecology of Lower Danube Banks Erosion*, to be sent next year to *Nature and Culture*).

It is through this project that we identified several risks of a geomorphological nature (banks’ erosion, landslides noticed on the steep slope of the eastern Burnaz plain between Daia and Prindu, especially in the villages of Jarcaleți, Pietrele and Puieni, because of the Frățești layers’ water) and also of a socio-economic nature (unplanned and erratic development which led to the shrinking of the forest screen providing protection against floods, protection forests used as plantations of hybrid poplar which is less resistant to erosion, while we observed a high erosion of the Danube banks planted with such poplar trees, collapses of the type called “Brăila karst” emerging in floodplains after the construction of the levees and the drainage).¹

¹ For details about these phenomena from the standpoint of political ecology, see S. Dorondel, C. Posner, I. Aramaș, *A Political Ecology of Lower Danube Banks Erosion*, to be sent next year at *Nature and Culture*. See also F. Bărăscu, *Modificarea factorilor de mediu din Lunca Dunării (Sectorul Vedea*

There are national plans and policies of defense against floods which we analyzed in this project. Romania's Agenda (for 2015-2019), however, touches only slightly the environmental risks or those posed by environmental changes, while it stresses mainly the military risks. Generally, Romanian flood protection policies are rather transpositions of European directives (for instance, the EU directive no. 2007/60/EC on flood risks). Each county and each territorial and administrative division (Romanian acronym - UAT) or water management branch (Romanian acronym - ABA) have their own plan of defense against floods and hazardous weather phenomena or against accidents at hydrotechnical constructions. There is in place a manual for the harmonization of the requirements on the Danube flood maps' procedure which were produced within the EU FloodRisk project. Despite this huge effort which attempts to harmonize the flood protection procedures at the European level, the local research and the research carried out at institutions significant in the implementation of this strategies, we can argue that there is no communication, at least between Romania and Bulgaria. Although there are contracts at governmental level or at the level of local institutions (commune/town hall, prefect's office - in Romania, obshtina oblastna administratsjia in Bulgaria), in fact cooperation is non-existent.

With regard to the way civil society reacted to floods at local, county and national level, it chose a kind of alternative to the governmental policies and refer mostly to ecological restoration (renaturare). Ecological restoration is seen as a suitable and sustainable policy which would combat floods in an efficient manner. We analyzed in detail this strategy within the *Good Practice Guidelines*. We mention here only the fact that many ecological restoration projects - as shown by the interviews we held with local and national experts - are limited to office work and do not involve local knowledge and not even the knowledge of local experts. This kind of knowledge should be employed better in the preparation of ecological restoration plans.

Our project also implicated field research in Bulgaria, which required comparative analysis. Apparently, the way the former Bulgarian floodplain is used much the same as the Romanian floodplain. The most part of the land resulted from embankment is also used for agriculture. Smaller areas are used as pastures and in afforestation projects. But the field study revealed significant differences. Firstly, the size of the majority of agricultural exploitations on the Danube embanked shore in Bulgaria are small to medium. There are only exceptions of large agricultural investors comparable to those on the Romanian shore. Furthermore, most Bulgarian agricultural investors, at least in the two researched areas, namely, Vidin and Pleven, are locals, well established in the local social networks. There is a certain rejection manifested towards both Bulgarian and foreign investors who are not integrated in such networks (see for details S. Dorondel, S. Șerban, *Dissuading Large Agricultural Investors: Neoliberalism and Community Mobilization in Bulgaria*, accepted for peer-

Arges) în urma lucrărilor de îmbunătățiri funciare. / Modification of the environmental factors in the Danube Valley (The Vedea-Arges section). Doctoral thesis. University of Bucharest - Faculty of Geography, 1999. As part of the project, we held an interview with dr. Bărăscu.

review for a special issue edited by Oane Visser, Stefan Dorondel, Natasha Mamonova and Max Spoor entitled *Post-socialist Smallholders: Silence, Resistance and Alternatives*, in *Canadian Journal of Development Studies*). Secondly, following a special law enacted by the Bulgarian government, there are no abandoned agricultural lands. A special legislative mechanism put in place by municipalities reassigns abandoned lands to active agricultural entrepreneurs who exploit them under lease. This measure is important especially since the Bulgarian Danube bank is highly depopulated due to the fact that a part of the landowners are living in cities. So the entire utilization of the agricultural lands is achieved through this measure and also through the allocation of subsidies. As is the case with the Romanian bank, we noticed within our anthropological research the return to pre-embankment local economic practices. But the severe depopulation of the Romanian bank is limiting this process.

With regard to the local, regional and national political strategies of Bulgaria, they stem from a relatively coherent legislative package on the defense of the population and goods against natural hazards. The solidity of this mechanism was apparent in the case of the 2006 and 2010 flood threats, when in Vidin, the most vulnerable region, rapid response committees were set to monitor the Danube water levels as well as their effect on the protection system through levees. Moreover, an integrated transborder system resulted from a project funded by the European Union and completed in 2014 is also in place. This system monitors, including via satellite, the main potentially hazardous sources on the Danube, from floods to pollution-generating accidents (an objective disputed between Romania and Bulgaria is the Kozloduj Bulgarian nuclear power plant). As shown by the interviews carried out with local (obshtini) and regional (oblasti) authority representatives in Vidin and Pleven, these intervention plans are active and effective.

A major lack, however, is the weak monitoring and maintenance of the levees. Probably more than in the case of the Romanian bank, the levees on the Bulgarian bank are dilapidated. Furthermore, in 2014, the year when we performed the field research, the Bulgarian land improvement state company was bankrupt with its employees not having received their wages for several months. In such circumstances, the levees fall entirely under the responsibility of the local communities. As we stated above, traditional practices are returning and the people carrying out such practices are repopulating the former floodable area.

The action by the local civil society on the Bulgarian Danube bank materialized in two ecological restoration projects in the Nikopol - Belene and Ruse - Tutrakan areas. Being carried out after 2005, subsequently to the pressure by international environmental organizations, these projects may appear as a success, especially if compared with what happened on the Romanian bank, where similar projects did not evolve beyond the paper phase of the ecological restoration design. But the field work revealed many complaints of the local population against these projects and even some sort of resistance. The identified cause for these attitudes was the ecological restoration model which excluded the participation of the local population and, moreover, blocked its access to the resources from the ecologically restored areas. We detailed this issue in the Good Practice Guidelines. We emphasize here just the fact that by comparison with such large ecological restoration projects, smaller alternative projects based on the local ecological culture were carried out.

Although relatively modest in terms of environmental impact, they galvanize local participation, eco-tourism, ecological education, etc., with benefits for the local population.

Project results and impact

The project proposed a clear set of results. Firstly, the project was to contribute to the international theoretical debates regarding the human-environment interaction and the development of a disaster anthropology by eastern European narratives. This was achieved through the participation at more than 30 international conferences (the overwhelming majority of which were paid by organizers and not by the project), including the participation of Ștefan Dorondel at the World Resources Forum organized in October 2014 at Arequipa, Peru (at the invitation and expense of the Swiss Academy of Social Sciences), the theme of which was environmental disasters. Ștefan Dorondel was invited as keynote speaker at the international Conference of the International Association for Southeast European Anthropology (September 2014) and also as invited lecturer at the Anthropology Department of the University of Vienna or at the Joint Graduate School of the Universities of Regensburg and LMU Munchen. In all these conferences (see also the 2014 and 2015 reports published on the project's website) data, information and materials obtained within the project were presented. The fact that the team had a significant theoretical and methodological contribution is reflected by the invitation sent to Ș. Dorondel și Mărioarei Rusu to participate with a paper by the Boston University's Anthropology Department (March 2016) and as partners in a future research project to be submitted to the NSF. Also, it is worth mentioning here the success of the conference, organized as part of the project, which took place between June 18-21. Several important figures in social sciences participated in this conference: James C. Scott, Yale University (*The State and the History of Rivers: In Praise of Floods*) – for the first time in southeastern Europe, Sue Tapsell, Middlesex University, London (*Taking Control: Empowering Communities for Local Flood Risk Management in the UK*) or Heinz Gutscher, the President of the Swiss Academy of Social Sciences (*The Role of Affect in Communicating Flood Risks in Switzerland*). Also here we should add the papers already published in ISI journals (Iuliana Armaș, Ionescu, R and Cristina Posner (Nenciu) 2015. Flood risk perception along the Lower Danube River, Romania. *Natural Hazards* 78(1): 1-19 (ISI, IF. 1.719) <http://link.springer.com/article/10.1007/s11069-015-1939-8>. Doi 10.1007/s11069-015-1938-8) or those accepted for peer-review at worldwide top journals (Environment and History, Technology and Culture) as well as chapters in books to be published by prestigious publishers (Routledge). Ștefan Dorondel is presently preparing a volume which will be co-edited with James C. Scott and submitted to the Yale University Press.

The second major contribution of the project was the investment in human resources. We have integrated a doctoral student who successfully obtained her Ph.D. (with a

research developed as part of the project from the standpoint of political ecology, maybe the first doctoral thesis defended in this sub-discipline in Romania) at the University of Bucharest. We should mention here the fact that based on this research a new project intending to extend and deepen the research axes and area will be submitted by Ștefan Dorondel at the Rachel Carson Center (LMU Munchen) by the end of this year.

Finally, a public policy report will be delivered to the local, county and national authorities. In this report we will include project- acquired knowledge and knowledge-based recommendations. The report will comprise field and archival data and develop new methods that could help state agencies, farmers and their associations, biodiversity conservation and protection bodies and entities providing technical assistance in the field of rural development in taking better decisions concerning the management of the Danube Valley.

Furthermore, the purchase with project funds of an important collection of environmental anthropology, political ecology and human ecology books for the library of the Francisc I. Rainer Institute transformed this library into the most important public institution having such a specialized book collection not only in Romania but in southeastern and central Europe.

We think this project successfully met all its initially undertaken objectives.