

Papers and Products SWIP

Published, peer-reviewed

2018

Zheng, J., Lienert, J. (2018) Stakeholder interviews with two MAVT preference elicitation philosophies in a Swiss water infrastructure decision: aggregation using SWING-weighting and disaggregation using UTA-GMS. European Journal of Operational Research 267(1): 273-287.
<https://doi.org/10.1016/j.ejor.2017.11.018>.

2017

Scholten, L., Maurer, M., Lienert, J. (2017) Comparing multi-criteria decision analysis and integrated assessment to support long-term water supply planning. PLoS ONE 12(5): e0176663.
<http://doi.org/10.1371/journal.pone.0176663>.

2016

Lienert, J., Duygan, M., Zheng, J. (2016) Preference stability over time with multiple elicitation methods to support wastewater infrastructure decision-making. European Journal of Operational Research 253 (3): 746-760. <http://dx.doi.org/10.1016/j.ejor.2016.03.010>.

Zheng, J., Egger, C., Lienert, J. (2016) A scenario-based MCDA framework for wastewater infrastructure planning under uncertainty. Journal of Environmental Management 183 (3): 895-908.
<http://dx.doi.org/10.1016/j.jenvman.2016.09.027>.

2015

Egger, C., Maurer, M. (2015) Importance of anthropogenic climate impact, sampling error and urban development in sewer system design. Water Research 73(78-97).
<http://dx.doi.org/10.1016/j.watres.2014.12.050>

Lienert, J., Scholten, L., Egger, C., Maurer, M. (2015) Structured decision-making for sustainable water infrastructure planning and four future scenarios. EURO Journal on Decision Processes 3(1-2): 107-140. (special issue on Environmental Decision Making). <http://dx.doi.org/10.1007/s40070-014-0030-0>.

Scholten, L., Schuwirth, N., Reichert, P., Lienert, J. (2015) Tackling uncertainty in multi-criteria decision analysis – An application to water supply infrastructure planning. European Journal of Operational Research 242(1): 243-260. <http://dx.doi.org/10.1016/j.ejor.2014.09.044>

2014

Scholten, L., Scheidegger, A., Reichert, P., Maurer, M., Lienert, J. (2014) Strategic rehabilitation planning of piped water networks using multi-criteria decision analysis. Water Research 49(1): 124–143.
<http://dx.doi.org/10.1016/j.watres.2013.11.017>

2013

Egger, C., Scheidegger, A., Reichert, P., Maurer, M. (2013) Sewer deterioration modeling with condition data lacking historical records. Water Research 47: 6762-6779.
<http://dx.doi.org/10.1016/j.watres.2013.09.010>.

Lienert, J., Schnetzer, F., Ingold, K. (2013) Stakeholder analysis combined with social network analysis provides fine-grained insights into water infrastructure planning processes. Journal of Environmental Management 125: 134-148. <http://www.sciencedirect.com/science/article/pii/S0301479713002247>

- Renner, R., Schneider, F., Hohenwallner, D., Kopeinig, C., Kruse, S., Lienert, J., Link, S., Muhar, S. (2013) Meeting the challenges of transdisciplinary knowledge production for sustainable water governance. *Mountain Research and Development* 33(3): 234-247.
- Scheidegger, A., Scholten, L., Maurer, M., Reichert, P. (2013) Extension of pipe failure models to consider the absence of data from replaced pipes. *Water Research* 47: 3696-3705.
- Scholten, L., Scheidegger, A., Reichert, P., Maurer, M. (2013) Combining expert knowledge and local data for improved service life modeling of water supply networks. *Environmental Modelling & Software* 42: 1-16.

2012

- Scheidegger, A., Maurer, M. (2012) Identifying biases in deterioration models using synthetic sewer data. *Water Science and Technology*, 66(11): 2363-2369. doi: 10.2166/wst.2012.471.

2011

- Scheidegger, A., Hug, T., Rieckermann J. and Maurer, M. (2011) Network condition simulator for benchmarking sewer deterioration models. *Water Research*, 45(16), 4983-4994.
<http://dx.doi.org/10.1016/j.watres.2011.07.008>.

Non-peer-reviewed publications

2015

- Egger, C., Scheidegger, A., Maurer, M., Reichert, P. (2015) Schätzung der Kanalalterung. Modellbasierte Schätzung des Alterungsverhaltens von Kanalnetzen ohne Datenhistorie (in German) (Estimate of sewer ageing. Model-based estimates of ageing behavior of sewer networks without data history). *Aqua & Gas* 11, 2015: 4–54. <http://www.aquaetgas.ch/>
- Egger, C., Maurer, M. (2015) Kanalnetzbemessung unter Unsicherheit. Die Bedeutung des Klimawandels für die hydraulische Funktion von Kanalnetzen (in German) (Sewer network dimensioning under uncertainty. The significance of climate change for hydraulic functioning of sewer networks). *Aqua & Gas* 11, 2015: 56–63. <http://www.aquaetgas.ch/>
- Lienert J., Scholten L., Egger C., Maurer M. (2015) Additional information for “Structured decision-making for sustainable water infrastructure planning and four future scenarios” (Lienert et al. (2015) EURO J Decis Process 3). Working Papers in Environmental Social Sciences 2015, 2014-3, Department of Environmental Social Sciences, Swiss Federal Institute of Aquatic Science and Technology (Eawag), Dübendorf, Switzerland. <http://www.eawag.ch/forschung/ess/workingpapers/>.

2014

- Lienert J., Scholten L., Egger C., Maurer M. (2014) Additional information for “Structured decision-making for sustainable water infrastructure planning and four future scenarios” (Lienert et al. (2015) EURO J Decis Process 3). Working Papers in Environmental Social Sciences 2014-3, Department of Environmental Social Sciences, Swiss Federal Institute of Aquatic Science and Technology (Eawag), Dübendorf, Switzerland. <http://www.eawag.ch/forschung/ess/workingpapers/>.
- Maurer, M., Lienert, J. (2014) Wasserinfrastrukturen nachhaltig in eine unsichere Zukunft führen / Sustainable water infrastructure planning for an uncertain future (in German, English French). Eawag news 02/ April 2014: 1–8. http://www.eawag.ch/medien/publ/news/2014_na_17/index?clear_lang=1
- Scholten, L., Egger, C., Zheng, J. Lienert, J. (2014) Multikriterielle Entscheidungsunterstützung. Neue Ansätze für langfristige Infrastrukturplanung in der Wasserver- und -entsorgung (in German)

(Multicriteria decision support. New approaches for long-term water supply and wastewater infrastructure planning). *Aqua & Gas* 5, 2014: 62–69. <http://www.aquaetgas.ch/>
Scholten, L., Maurer, M., Scheidegger, A. (2014) Zustandsmodellierung kleiner Versorgungsnetze (in German) (Condition modeling of small water supply networks). *Aqua & Gas* 6, 2014: 51–58.
<http://www.aquaetgas.ch/>

2013

Scheidegger, A., Beutler, P., Maurer, M. (2013) Prognosen zum Sanierungsbedarf der Schweizer Kanalisation (in German) (Prognosis about the rehabilitation demand of Swiss sewers). *Aqua & Gas*, 1: 2013, 16-20.

2012

Lienert, J., Maurer, M. (2012) Judit Lienert: „Wir arbeiten mit einer ‚multikriteriellen Entscheidungsanalyse“ (in German) (Judit Lienert: „We are working with ‚multicriteria decision analysis“). *Aqua & Gas* 5: 2012.

2011

Jaquemet, D., Battaglia, G., Rubel, M., Honegger, M., Metz, F., Scholten, L., Schnetzer, F., Egger, C. Tendall, D., Lehmann, N., Stauffacher, M. (2011) Nachhaltige Wassernutzung, der Fall Mönchaltorfer Aa, Greifensee. Fallstudie 2011, TdLab ETH-IED, ETH Zürich, Switzerland.
Arreaza Bauer, A.S., Egger, C., Scholten, L. (2011) Erhebung quantitativen Expertenwissens über die Alterung von Wasserleitungen und Kanalhaltungen, Zusammenfassung über die Erhebungsergebnisse, Eawag Dübendorf, März 2011.

Posters

2015

Kianfar, B., Fatichi, S., Maurer, M., Molnar, P. Does climate change have detectable impacts on the design of Swiss urban drainage infrastructure? ETH Zürich, Switzerland. 2015.

2014

Lienert, J., Maurer, M. Wasserinfrastrukturen nachhaltig planen – Modellierung, Entscheidungsanalyse und Partizipation für Kanal- und Wasserversorgungsnetze. Poster, Abschlusstagung, Ergebnisse des NFP 61 «Nachhaltige Wassernutzung», Swiss National Science Foundation, Solothurn, Switzerland, 5.11.2014.

2013

Zheng, J., Lienert, J. Incorporating stakeholders' preferences into wastewater infrastructure planning. 3rd Progress Report Meeting/ Final Meeting, NRP 61 Sustainable Water Management. Thun, Switzerland 14.-15.10.2013.

2012

Egger, C., Maurer, M., Reichert, P., Morgenroth, E. (2012) Long-term planning of sewer systems (SWIP). 2nd Progress Report Meeting NRP61. Vitznau, Switzerland, 12.-13.03.2012.

2011

Egger, C., Schnetzer, F., Scholten, L. (2011) SWIP – Sustainable water infrastructure planning. 1st NRP-61 Progress Report Meeting. Murten, Switzerland, 01.04.2011.

Conference Presentations, Workshops

2015

Lienert, J., Stamm, C., M. Funk. Sag mir, wo die Gletscher sind... Eine Ausstellung des Schweizerischen Nationalfonds. Treffpunkt Science City, Rohstoff Erde. ETH Zürich, Switzerland, 25.10.2015.

Lienert, J., Zheng, J., Scholten, L. Integrating stakeholders in an MCDA-process for sustainable water infrastructure planning. MCDM 2015, 23rd International Conference on Multiple Criteria Decision Making, Hamburg, Germany, 2.–7.08.2015.

Lienert, J., Duygan, M., Zheng, J. Preference stability over time using two weight elicitation methods for wastewater infrastructure planning. EURO – 27th European Conference on Operational Research, University of Strathclyde, Glasgow, Scotland, 12.–15.07.2015.

Lienert, J. (Invited Keynote Speaker) Einbezug von Akteuren zur langfristigen Planung nachhaltiger Wasserinfrastrukturen (SWIP) in einer unsicheren Welt. Statuskonferenz zur BMBF-Fördermaßnahme “Intelligente und multifunktionelle Infrastruktursysteme für eine zukünftige Wasserversorgung und Abwassersentsorgung” (INIS). Hamburg, Deutschland, 20.–21.01.2015.

Maurer, M. Sustainable Water Infrastructure Management. Presentation at the TU-Prague, CZ, 15.01.2015.

Scholten, L., Schuwirth, N., Reichert, P., Lienert, J. Tackling uncertainty in MCDA – applied to water infrastructure planning. MCDM 2015, 23rd International Conference on, Multiple Criteria Decision Making, Hamburg, Germany, 2.–7.08.2015.

2014

Egger, C. Schadens-/ Zustandsprognosemodelle für Wasserversorgung und Siedlungsentwässerung. Abschlussveranstaltung zum NFP-61-Projekt SWIP, langfristige Planung nachhaltiger Wasserinfrastrukturen. Eawag, Dübendorf, 23.01.2014.

Egger, C., Maurer, M. Sustainable urban water management. Presentation at the ETH-Partnership Council Sustainable Construction Meeting, Zürich. 20.05.2014.

Egger, C., Maurer, M. MCDA and deterioration modelling in water infrastructure planning. Presentations at the international Sewer Asset Management Workshop, Berlin, Germany, 19./20.06.2014.

Lienert, J. Was ist eine nachhaltige Entscheidung? Die multikriterielle Entscheidungsanalyse im Praxistext. Abschlussveranstaltung zum NFP-61-Projekt SWIP, langfristige Planung nachhaltiger Wasserinfrastrukturen. Eawag, Dübendorf, 23.01.2014.

Lienert, J. Input for Workshop „Wissensintegration Forschung – Praxis“. NFP 61 «Nachhaltige Wassernutzung», Swiss National Science Foundation, Berne, Switzerland, 25.11.2014.

Lienert, J., Zheng, J., Scholten, L. Integrating stakeholders in an MCDA-process for sustainable water infrastructure planning. INFORMS Annual Meeting 2014, San Francisco, CA, USA, 09.-12.11.2014.

Lienert, J. Blick in die Zukunft – Gesellschaftliche und wirtschaftliche Szenarien. Praxisworkshop, Entscheidungshilfen und Umsetzungswerkzeuge des NFP 61 «Nachhaltige Wassernutzung», Swiss National Science Foundation, Solothurn, Switzerland, 5.11.2014.

Lienert, J. netWORKS 3 / INIS: Fachgespräch „Integrierte Bewertung“. ISOE, Frankfurt am Main, Deutschland, 15.12.2014.

- Maurer, M. Verlässliche Planung in einem unsicheren Umfeld. Abschlussveranstaltung zum NFP-61-Projekt SWIP, langfristige Planung nachhaltiger Wasserinfrastrukturen. Eawag, Dübendorf, 23.01.2014.
- Maurer, M. (2014) Water Infrastructure Planning. Presentation at the Res'Eau – Eawag workshop, Dübendorf, 29.04.2014.
- Maurer, M. Nachhaltige Wasserinfrastruktur Planung. Presentation at the Kolloquium of Lück Stiftung, Zürich. 13.01.2014.
- Maurer, M., Egger, C., Scholten, L., Lienert, J. Abschlussveranstaltung zum NFP-61-Projekt SWIP, langfristige Planung nachhaltiger Wasserinfrastrukturen. Workshop und Diskussion zwischen Eawag-Forschenden und Akteuren aus der Praxis. Eawag, Dübendorf, 23.01.2014.
- Scholten, L. Resultate aus den Fallstudien. Abschlussveranstaltung zum NFP-61-Projekt SWIP, langfristige Planung nachhaltiger Wasserinfrastrukturen. Eawag, Dübendorf, 23.01.2014.
- Scholten, L., Maurer, M., Lienert, J., Long-term water supply planning with multi-criteria decision analysis. IWA Water, Environment and Climate Conference 2014, Mexico City, Mexico, 20–23.05.2014.
- Scholten, L., Schuwirth, N., Reichert, P., Lienert, J. Tackling uncertainty in complex MCDA and MAUT problems. INFORMS Annual Meeting 2014, San Francisco, CA, USA, 09.-12.11.2014.

2013

- Egger, C., Honti, M., Maurer, M. Einfluss des Klimawandels auf die Leistung der Siedlungsentwässerung. Aqua Urbanica 2013. Gewässerschutz bei Regenwetter – Gemeinschaftsaufgabe von Stadtplanern, Ingenieuren und Ökologen. Zürich, Switzerland, 29.-30.09.2013.
- Egger, C. Sewer rehabilitation planning based on data with limited information content. 21st European Junior Scientist Workshop on Sewer Asset Management. Delft, The Netherlands, 20.-22.11.2013.
- Lienert, J. Making hard decisions to ensure safe water supply and wastewater disposal in uncertain futures. Seminar on Transdisciplinary Research for Sustainable Development, D-USYS, ETH Zürich, Switzerland, 06.11.2013.
- Lienert J, Maurer, M. Sustainable Water Infrastructure Planning, SWIP. 3rd Progress Report Meeting/ Final Meeting, NRP 61 Sustainable Water Management. Thun, Switzerland 24.-25.10.2013.
- Scholten, L., Lienert, J. MCDA for water supply infrastructure planning under uncertainty. 22nd International Conference on Multiple Criteria Decision Making, MCDM for Tomorrow's World. Málaga, Spain, 17.-21.06.2013.
- Scholten, L., Maurer M. Langfristige Planung von Wasserinfrastrukturen. SVGW Gas- und Wasserfachtagung, Lugano, Switzerland. 19.09.2013.
- Scholten, L. Multi-criteria decision analysis for water supply infrastructure planning under uncertainty. Seminar at ISOE. Frankfurt, Germany. 18.11.2013.
- Zheng, J., Lienert, J. Incorporating stakeholders' preferences into wastewater infrastructure planning. 22nd International Conference on Multiple Criteria Decision Making, MCDM for Tomorrow's World. Málaga, Spain, 17.-21.06.2013.

2012

- Egger, C., Honti, M., Maurer, M. (2012) Impact of climate change on urban drainage system performance. 9th International workshop on precipitation in urban areas. Urban Challenges in Rainfall Analysis. St Moritz, Switzerland, 6.-9.12. 2012.
- Lienert, J. Workshop: „Transdisziplinäre Wissensproduktion in der Wasserforschung“. Organized by Flurina Schneider (Univ. Berne), Renate Renner (Univ. Graz), AlpS. Innsbruck, Austria, 19.-20.04.2012.

- Lienert, J., Maurer, M. Organization: "Workshop Praxis-Begleitgruppe SWIP: Langfristige Planung nachhaltiger Wasserinfrastrukturen". Eawag, Dübendorf, Switzerland, 02.05.2012.
- Lienert, J. Making hard decisions to ensure safe water supply and wastewater disposal in uncertain futures. Risk and Society: Decisions and Responsibility. 21st SRA-Europe Meeting, Society for Risk Analysis (SRA) Europe. ETH Zürich, Switzerland, 18.-20.06.2012.
- Lienert, J., Maurer, M. Bottom up in die Zukunft – Neue Planungsansätze für die Gemeinden. PEAK-Fachtagung: Herausforderungen einer nachhaltigen Wasserwirtschaft. Eawag, Dübendorf, Switzerland, 14.09.2012.
- Scholten, L. Combination of prior knowledge and data for improved service life modeling of water supply networks. KWR (Watercycle Research Institute), Eawag seminar. Dübendorf, Switzerland, 09.03.2012.
- Scholten, L., Lienert, J., Maurer, M., Egger, C. Sustainable Water Infrastructure Planning. 2nd Progress Report Meeting NRP61. Vitznau, Switzerland, 12.-13.03.2012.
- Scholten, L., Lienert, J. Tackling uncertainties in MCDA for sustainable water infrastructure. European Conference of Operational Research. Vilnius, Lithuania, 8.-11.07.2012.
- Scholten, L. Strategic rehabilitation planning for small Swiss water utilities. Seminar on Water Distribution Network Failure Modeling and Rehabilitation Planning, Eawag, Dübendorf, Switzerland, 12.11.2012.
- Scholten, L. Multiple-criteria decision support for sustainable water infrastructure planning. Online presentation. RES'EAU-WaterNET round table (Canada), 17.08.2012.

2011

- Egger, C. Sewer deterioration modeling – dealing with unrepresentative data. Eawag Seminar in Infrastructure Management, Institute of Construction and Infrastructure Management, ETH Zürich, Switzerland, 13.09.2011.
- Engel, S. et al. (2011) Fallstudie 2011 "Nachhaltige Wassernutzung: der Fall Mönchaltorfer Aa, Greifensee"; Transdisziplinäre Fallstudie, Dialog Wissenschaft-Praxis, ETHZ-IED. In collaboration with Egger, C., Schnetzer, F., Scholten, L. http://www.uns.ethz.ch/translab/cs_former/2011.
- Lienert, J., Egger, C., Schnetzer, F., Scholten, L., Maurer, M. Ziele und Alternativen der Wasserinfrastrukturen für das Gebiet der Mönchaltorfer Aa. 2nd Workshop with stakeholders from case study „Mönchaltorfer Aa“. Grüningen, Switzerland, 26.05.2011.
- Maurer, M., Egger, C., Schnetzer, F., Scholten, L., Lienert, J. Sustainable Water Infrastructure Planning (SWIP). 1st NRP-61 Progress Report Meeting. Murten, Switzerland, 01.04.2011.
- Maurer, M., Egger, C., Schnetzer, F., Scholten, L., Lienert, J. SWIP Zukunfts-Workshop. 1st Workshop with stakeholders from case study „Mönchaltorfer Aa“. Grüningen, Switzerland, 19.04.2011.
- Scheidegger, A., Maurer, M. (2011) Identifying biases in deterioration models using synthetic sewer data. In: Proceedings IWA-Leading Edge Asset Management Conference LESAM 2011, Mülheim, Germany, 20.-27.09.2011.
- Scholten, L. Pipe deterioration, data, and experts. ETH- Eawag Seminar in Infrastructure Management, Institute of Construction and Infrastructure Management, ETH Zürich, Switzerland, 22.02.2011.

2010

- Egger, C. Wastewater Infrastructure Planning. Prediction of future condition of wastewater infrastructure within SWIP. ETH-Eawag Seminar in Infrastructure Management, Eawag, Switzerland, 14.09.2010.
- Lienert, J., Maurer, M., Reichert, P., Morgenroth, E. Sustainable Water Infrastructure Planning. (SWIP). NFP-61 Kick-off meeting. Solothurn, Switzerland, 4.-5.03.2010.

Scholten, L. Langfristige Planung nachhaltiger Wasserinfrastrukturen in der Schweiz. Guest speaker at 2nd plenary session of the SVGW Hauptkommission Wasser 2010, Berne, Switzerland. 12.11.2010.

Scholten, L. Water supply infrastructure management in Switzerland. The SWIP perspective.

Presentation. ETH- Eawag Seminar in Infrastructure Management, Eawag, Switzerland. 14.09.2010.

2009

Lienert, J., Maurer, M., Reichert, P. Sustainable Water Infrastructure Planning (SWIP) Antragskolloquium NFP 61. Berne, Switzerland, 21.09.2009.

PhD, Master, and Bachelor Theses, Internal Reports

2015

Egger, C. (2015) Sewer rehabilitation planning under uncertainty. Dissertation Nr. 22594 for the degree of Doctor of Sciences of ETH Zürich, Switzerland (supervised by M. Maurer).

2013

Duygan, M. (2013) Stability of preferences over time; comparison of two elicitation methods. Internal Report, student internship of ETH Zürich at Eawag, Dübendorf, Switzerland (supervised by J. Zheng, J. Lienert).

Eppler, J. (2013) Sewer deterioration in two Swiss municipalities. Assessment of different rehabilitation alternatives in various socio-economic scenarios. Master project thesis. ETH Zürich, Switzerland (supervised by M. Maurer, C. Egger).

Gmür, M. (2013) Costs for hydraulic rehabilitation under consideration of climate change. Master project thesis. ETH Zürich, Switzerland (supervised by M. Maurer, C. Egger).

Günther, M. (2013) Vergleichende Bewertung von zwei Modellen zur Rohrschadensprognose am Beispiel ländlicher Trinkwasserversorgungsnetze. Masterarbeit zum Erwerb des akademischen Titels Diplomingenieur der Studienrichtung Bauingenieurwesen. Technische Universität Graz, Austria (supervised by D. Fuchs-Hanusch, F. Friedl, L. Scholten).

Haas, A. (2013) Entwicklung von Modellregenserien unter Einfluss des Klimawandels. Bachelorarbeit. ETH Zürich, Switzerland (supervised by M. Maurer, P. Staufer, C. Egger).

Scholten, L. (2013) Multi-criteria decision analysis for water supply infrastructure planning under uncertainty. Dissertation Nr. 21467 for the degree of Doctor of Sciences. ETH Zürich, Switzerland (supervised by P. Reichert, J. Lienert, M. Maurer).

2012

Wolter, K. (2012) Einfluss der Datenbeschaffenheit auf die Schadensprognose von Wasserleitungen. Bachelorarbeit zur Erlangung des akademischen Grades Bachelor of Science, 268316. Hochschule Bremen, Germany (supervised by H. Albers, L. Scholten).

2011

Arreaza Bauer, A.S. (2011) Robust elicitation of imprecise expert knowledge for water infrastructure management. Master Thesis for the Master of Environmental Engineering, 08-931-446. ETH Zürich, Switzerland (supervised by E. Morgenroth, L. Scholten, C. Egger, S. Rinderknecht).

Media (TV, radio, newspaper)

Maurer, M. (2014) Radio interview: Im Untergrund drohen Wasserlecks (in German) (There is a threat of underground water leakages). Radio SRF 2 Wissenschaftsmagazin, Anita Vonmont, 22.02.2014, 12.40. Switzerland. <http://www.srf.ch/sendungen/wissenschaftsmagazin/im-untergrund-drohen-wasserlecks>

Maurer, M., Lienert, J. (2014) Im Untergrund drohen Wasserlecks (in German) (There is a threat of underground water leakages). Technik – Wissen, Schweizer Radio und Fernsehen, Online-Artikel Anita Vonmont, 24.02.2014. Switzerland. <http://www.srf.ch/wissen/technik/im-untergrund-drohen-wasserlecks>

Maurer, M. (2014) Radio interview: Die Wasserversorgung in der Schweiz (in German) (Water supply in Switzerland). Radio SRF1 Treffpunkt, 23.01.2014. <http://www.srf.ch/sendungen/treffpunkt/die-wasserversorgung-in-der-schweiz>

Scholten, L. (2014) Radio interview: Les canalisations: un gouffre à milliards (The canalisation: an abyss of billions). Radio Télévision Suisse, Nicole della Pietra 23.10.2014. Switzerland. <http://www.rts.ch/la-1ere/programmes/intervites/>