

**Civil Society Organizations and the Protection of Sub-Saharan  
Africa's Colonial Railways:  
The Case of Madagascar's Fianarantsoa-Côte Est Railway**

**By**

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of the requirements for the degree of  
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## **Dedication**

Dedicated with all my heart and gratitude to  
Marion, Mila,  
and my parents Ivan and Christine

## **Acknowledgements**

It is only fitting to use one of my favorite musical transportation metaphors to describe my academic journey because it has, indeed, been a long and winding road. During this time, I have had the honor and pleasure of meeting many people who have shared so much with me. They extended their hands, opened their hearts and homes, relayed important documents and information, and offered what scarce time they could to share their thoughts and opinions. We engaged in serious debates and traveled long distances in difficult conditions to meet interesting people. It has been an adventure that presented beautiful vistas and the occasional danger. We sang and danced, and we sometimes shared immoderate amounts of laughter, food and drink. Many have pushed me when I've needed it and steered me to remarkable new insights when ideas already seemed so settled. It has been a journey where I have learned more than I could have possibly ever imagined when I started it. So it is with a heart full of both appreciation and a tad bit of sadness that comes at the end of a long venture that I would like to express my gratitude to those people who helped me through it.

I will start, most fittingly with my family, which played a vital role in this process. Had I been able to truly appreciate just how hard this path would have been, I would never have chosen to subject my wife Marion to the adversities we have faced. There is no doubt in my mind that her presence was one of the main ingredients to the successful outcome of this degree. So I would first like to extend my apologies to her for the occasional (or more) translation request, but also offer my deepest appreciation for her support and sometimes much-needed impetus to get going again. My parents Ivan and Christine helped in innumerable ways and for this I cannot thank them enough. I have a great and collectively sizeable

cheerleading section in the form of my siblings and their families, for which I am also grateful. My in-laws, Jean-Jacques, Christiane, Yves, Cecile, Jeanne, Marthe, Sami and Sabrina have all been generous with their time and support. And although she is too young to realize it, Mila played a critical role in motivating me to reach the finish line. Thank you all for your love and support.

I could not have hoped for a better committee. All of the members were both responsive and encouraging. My chair Jonathan Levine's door was always open and gave generously with his time to help me tease-out my questions and ideas throughout the process with very constructive critiques. Moreover, he showed me how to approach truly complex research questions and issue. I also recognize how fortunate I was to have such an effective mentor – not least because I could see what a gifted lecturer can do at 8 in the morning. My other committee members, Elisha Renne, Gabrielle Hecht and Gavin Shatkin were not only excellent instructors from whom I learned so much, but also offered essential feedback that greatly improved my work. All three taught fascinating courses related to development and they continued to strengthen my knowledge in this field through our conversations and recommended readings. The association I have with these fantastic people is something I hope to sustain well into the future despite the great distances that separate us.

Being a foreign research presents both opportunities and challenges, and I consider myself extremely fortunate to have had Patrick Marovelo and Gabriel "Pilo" Randriamanjatonony as my research assistants for both types of situations. They helped me navigate so many issues with their top-notch translation, investigative skills and intuition. Their generosity with their time and patience helped make this a successful research project, and their friendship made it fun. Patrick exemplified professionalism with his self-initiation and thoroughness; his patience and skills are underestimated only by himself. It is his passion for justice that gives me hope for a brighter future for Madagascar. Pilo is indeed the only Pilo in the world. His resourcefulness is beyond compare, as is his intuition in dealing with people from all types of backgrounds. His love of life, rice and laughter are things that even the

hardest research day can't take away. We three made a great team and I am truly indebted to them for all their hard work, and I look forward to working with them again as soon as possible.

It takes heart to work on certain endeavors, and the case of the Fianarantsoa-Côte Est railway (FCE) is one of those projects that demonstrate this fact better than most. It was serendipitous that Marion and I rode the FCE in 2003 and bought the tourist brochure mentioned in this dissertation. It was even more fortuitous that so many years later I was able to make contact with Karen and Mark Freudenberger before they left Madagascar. Their archives, introductions, and insights proved essential to the telling of this story. I appreciated their candor and reflexivity during their interviews. I recognize that this opened themselves up to memories and regrets that would probably have been easier to leave buried. Yet I also know from my trips along the line, and from speaking with hundreds of people, that their efforts were not in vain for they touched the lives of so many people. We need more development experts who approach such frustrating and seemingly impossible problems as they do, and I am glad that they take the time to provide so many of us “experts” with the practical skills and knowledge that help us do a better job.

I like to say that I went to Madagascar originally (long before I started my doctorate) to see the beautiful landscapes and unusual wildlife, but that I appreciated the people of Madagascar much more. This sentiment was only strengthened during my research trips because the Malagasy people went very far out of their way to assist me. I would like to thank Marietta and Richard Ramahafenosoa and their sons as well as all the staff at the Snack Imanoela for taking such good care of us in Fianarantsoa. I would also like to thank Claude and Laurence Ranaivojaona, plus all their staff in both Manampatrana and Fianarantsoa for their support. Madam Sophie and Anselme Black made sure my accommodations and financial dealings in Fianarantsoa went smoothly, which I appreciate very much. I would also like to thank my two host families—particularly Marius and his wife—for their attentiveness and professionalism as well. Pierrot Men has been very generous by allowing me to use his beautiful photographs in my presentations and

dissertation. Thank you also to all of the ERI staff in Fianarantsoa who helped me and my research team with logistics.

I would also like to thank the Malagasy government workers and public officials who helped move my research forward. This includes the FCE staff who do a fantastic job at keeping the line operational with so few resources. I appreciate them taking the time to speak with me, and for the access given to me by the director, Medard Rakotozafy, and head of engineering Dauphin Ramonjarisoa. I also want to thank the FCE station managers, support staff, drivers, police, maintenance workers, and porters for their time as well.

I was saddened to hear of the passing of Samuel Razanamapisa, who was so instrumental in helping to rally civil society in the push to save the FCE and who made himself available to answer my questions on multiple occasions.

The many villages where I conducted research welcomed me into their communities and for this alone I would be appreciative. Yet they also took time out of their busy days—usually spent tending to their fields, stores and families—to help me understand more about their lives and what has happened to them over the years. I appreciated their help in answering my questions and for asking their own. It was an engaging process and although I parted company with more information than I left behind, I hope to repay the favor one day. *Misaotra betsaka* to all of them!

As I have learned, the international nature of the development field can spread people far from one another. I appreciate all of these informants' patience in working around time zone differences and telecommunication challenges to give me an opportunity to speak with them. This includes development program experts like Criss Juliard and H Schar who kindly gave me their time. Frank West, who also demonstrated great passion and resourcefulness as one of the FCE's most active supporters, was equally generous with his time. In addition, while I take international development institutions like the World Bank to task at times for certain positions and policies, I also recognize that these institutions serve an important role and are comprised of individuals who care deeply about the mission



to reduce poverty and improve the lives of people living in less developed countries. I had the opportunity to speak with many of these experts and it reassures me that so many of them are as critical as they are caring. I do not want to call them out by name on the chance that doing so could even give them the slightest case of heartburn, but their help was nonetheless appreciated. The professionalism expected of experts was also embodied in the World Bank Archive's staff, for whose help I am indeed grateful.

I would also like to thank Lisa Hauser, Carol Kent, and Stacey Shimones for all of their support during my tenure in the program. Their help navigating the administrative hurdles both within and outside the university was most helpful and appreciated. Relatedly, my voluntary vow of poverty was occasionally lifted at critical moments during my Ph.D. program. For writing letters of recommendation on my behalf, I would like to thank my committee members as well as June Manning Thomas, Scott Campbell, Joe Grengs, Helene Neu, Donald Shoup, and Randall Crane. I also want to acknowledge the generous financial support of the University of Michigan's Department for Afroamerican and African Studies, International Development Institute, Rackham Graduate School, and the Taubman College of Architecture and Urban Planning.

While I started my research looking at other railways to which I could compare the FCE, such as in Gabon and Sierra Leone, hard decisions had to be made on what material to include and investigate. Yet my investigation of the Transgabonais railway helped clarify what a railway is, what it should be and what it can be. For all the logistical support and kindness they showed, I thank my very good friends from the Mbala-Nkanga and Edzang Abessolo families – especially Honorine and Mbala, Léo and Ginette, Odette and Victorine. I would also like to thank countless informants in Gabon's borders who also helped me achieve a massive leap forward in understanding the interconnections between railways and African and international politics. I would like to thank them collectively given that most preferred remaining anonymous anyway. There are a few people outside of Gabon, though, whom I would like to acknowledge by name. I got to know his professionalism by reading his

reports and memos at the World Bank's archives, but Thomas Oursin provided me with greater insight in person and demonstrated his passion to make these countries better, more honest places in how they deal with such infrastructure. I also want to thank Michael Reed for his insights on Gabonese culture. Related to Sierra Leone, Arthur Abraham, Paul Basu, and Paul Richards relayed valuable information and contacts to me regarding the Sierra Leone Government Railway. I look forward to revisiting these two railways in the not-so-distant future.

The importance of receiving constructive criticism often and continuously has not been lost on me and I certainly have benefited from that thanks to my friends and peers. I would like to thank my classmates at the University of Michigan, particularly those in my program, cohort, and research methods courses for their encouragement and insights that moved my research forward. In particular, I would like to heap tons of gratitude on Neha and Rahul Sami. It would take another Ph.D. program's worth of time to return the kindness they have shown me – arguably even more. Hiro Iseki provided me with copious amounts of feedback, critical pushback, and moral support throughout the entire dissertation process. I feel exceptionally fortunate to know him and call him a great friend and colleague. I will also be ever grateful to Geoff Oldmixon for his excellent editing skills and for his reminder that as sad as it may be, darlings must sometimes be sacrificed for the sake of clarity. I always enjoyed discussing theory, infrastructure and technology questions with Charlie Kaylor while he offered me room at his home, and I hope to revive these debates again one day. Many thanks also to David Epstein, Matt Heins, Deirdra Stockmann, and Salila Vanka for their support and feedback at various stages of the process. In addition, I would like to thank the students and professors who have provided me with feedback at the AESOP, ASAUk and Africa Studies Association conferences. I also would like to thank the students and faculty at Lyon's Laboratoire d'Economie des Transports—especially Alain Bonnafous, Lourdes Diaz Olvera, Didier Plat, Pascal Pochet and Charles Raux—for the opportunity to discuss some of my early ideas with them. I would also be remiss if I failed to thank Lesley Sharp, David Simon, and Genese Sodikoff for their advice and feedback.

Having the time and ability to think clearly is not a given, which is why I am so grateful to so many of my friends who helped me in ways that provided me with moral support, free time or the relaxed state of mind necessary to do my work. In particular, I would like to say merci beaucoup to my Lyonnais(se) friends Marina Fernandez, Nadia Tahiri, Olivier and Lena Roche, Nicolas Belmonte, Eric Boisguerin, Sylvia Guiliano, Bruno Dussautoir and Laurence Droux. For my Stateside acknowledgments, I would especially like to thank Leslie Mayes and Raul Zuniga, Erik Olafsson, Eddie Williams, Abel and Jennifer Zutler, Nelson Tong, Barry Piers, Shirley and Steve Donnelly, Duane Foster for their help when I needed it most. Many thanks to the Vintze brothers for getting me into the Go Blue! spirit. I feel lucky to have inherited Chris Coutts's desk and thank him for the teabag ornamentation he left behind, which was the true heritage of that office. In addition, some of my best moments of reflection came during periods of relaxation or with doses of fresh air – so some appreciation is due to Keisha, Mikado, Bamboo, Mango and Mrs. Norris.

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## **List of Abbreviations**

ADIFCE = Association des Détenteurs d'Intérêts de la FCE  
ANP = Andrimasom-Pokonolona  
ANTA = Agence Nationale d'Information Taratra  
BAD = African Development Bank  
CANAC = CANAC Railway Services Inc.  
CAP = Commercial Agricultural Promotion  
CBA = Cost-Benefit Analysis  
CBO = Community Based Organization  
CSO = Civil Society Organization  
EIRR = Economic Internal Rate of Return  
ERI = Eco-Regional Initiatives  
FCE = Fianarantsoa-Côte Est Railway  
FCER = Fianarantsoa-Côte Est Rehabilitation project  
FTM = Foiben-Taosarintanin'i Madagasikara  
GDP = Gross Domestic Product  
GNP = Gross National Product  
GOM = Government of Madagascar  
IBRD = International Bank for Reconstruction and Development  
IDA = International Development Association  
IDI = International Development Institution  
ILO = International Labor Organization

IMF = International Monetary Fund  
LDC = Less Developed Country  
LDI = Landscape Development Interventions  
NGO = Non-Governmental Organization  
OPCI = Organisme Public de Coopération Inter-communale  
PAGE = Projet d'Appui à la Gestion de l'Environnement  
PPN = Products of Primary Necessity  
PTSD = Post-Traumatic Stress Disorder  
RNCFM = Réseau National des Chemins de Fer Malagasy  
RRA = Rapid Rural Appraisal  
RTI = Road traffic injury  
RUF = Revolutionary United Front  
SAP = Structural Adjustment Program  
SLGR = Sierra Leone Government Railway  
SMOTIG = Service de la Main d'Oeuvre des Travaux d'Intérêt Général  
SSA = Sub-Saharan Africa  
TAZARA = Tanzania-Zambia Railway  
TCSO = Transportation-oriented Civil Society Organization  
UNESCO = United Nations Educational, Scientific and Cultural Organization  
USAID = United States Agency for International Development  
WGPCD = Working Group of Practitioners in Conservation and Development  
WHO = World Health Organization  
WWI = World War I  
ZMG = Zatovo Mikalo Gasy

## Glossary

**African Development Bank (BAD):** an international development institution established to contribute to the economic development and social progress of African countries.

**Agence Nationale d'Information Taratra (ANTA):** The national press agency of Madagascar.

***Andrimasom Pokonolona:*** Malagasy for “the people who watch,” these local groups of “community guards” have protected vital infrastructure points from acts of sabotage.

***Animateurs:*** French word for individuals or external agents who seek to make changes to an existing system or community by facilitating the action of others.

**Antemoro:** An ethnic group generally found on the coast near Manakara and low-lying areas adjacent to the FCE Railway in southeast Madagascar.

***Ariary:*** The basic monetary unit of Madagascar, which replaced the Malagasy Franc.

**Association des Détenteurs d'Intérêts de la FCE (ADIFCE):** A transportation-oriented civil society organization dedicated to protecting the interests of the FCE beneficiaries.

**Betsileo:** An ethnic group generally found on the high plateau near Fianarantsoa and around some of the forested areas adjacent to the FCE Railway in southeast Madagascar.

**Betsileo Railway:** Another name for the Fianarantsoa-Côte Est Railway (FCE).

**CANAC Railway Services Inc. (CANAC):** A Canadian railway consulting firm.

**Commercial Agricultural Promotion (CAP):** A USAID-funded project in Madagascar.

**Community Based Organization (CBO):** A non-profit, nongovernmental organization based within a local social or geographical community.

**Cost-Benefit Analysis (CBA):** systematic process for calculating and comparing benefits and costs of a project, decision or government policy.

*Dina*: Malagasy word for a traditional law, convention, or charter agreed upon by a group.

*Dinabe*: Malagasy word for the overarching law encompassing the entire railway.

*Dina-paritra*: Malagasy word for the local version of the *dina*.

Eco-Regional Initiatives (ERI): A USAID-funded project in Madagascar.

Economic Internal Rate of Return (EIRR): The annualized effective compounded return rate, which is often used to measure and compare the profitability of investments.

Enabling environment: A political and institutional climate where policies create and maintain an overall macroeconomic environment that brings together suppliers and consumers.

*Fady*: Malagasy word for a taboo.

Fianarantsoa-Côte Est Railway (FCE): A colonial-era railway built by the French in southeast Madagascar.

Fianarantsoa-Côte Est Rehabilitation project (FCER): The USAID-funded project aimed at rehabilitating the FCE Railway.

Foiben-Taosarintanin'i Madagasikara (FTM): The National Hydrographic and Geographic Institute in Madagascar is a public geographical institute.

*Fokonolona*: Malagasy word for “the community.”

*Fokontany*: Malagasy word for a traditional village.

Formal rationality: A form of rationality that is concerned with *means*-oriented activity or process.

Government of Madagascar (GOM): The official government of Madagascar after independence.

Gross Domestic Product (GDP): market value of all officially recognized final goods and services produced within a country in a given period of time. GDP per capita is often considered an indicator of a country's standard of living.

Gross National Product (GNP): market value of all the products and services produced annually by labor and property supplied by the residents of a country.

Hova: An ethnic classification used by the French for groups occupying the high plateau, which included both the Merina and the Betsileo.

Informants: The individuals responding to research questions.

International Bank for Reconstruction and Development (IBRD): Part of the World Bank Group, it offers loans to middle-income less developed countries.

International Development Association (IDA): Part of the World Bank and targets the world's poorest countries with grants and low-interest loans.

International Development Institution (IDI): Bilateral and multilateral organizations that focus on development issues in less developed countries.

International Labor Organization (ILO): A specialized authority within the United Nations that is focused on the promotion of social justice and internationally recognized human and labor rights.

International Monetary Fund (IMF): An international development institution, which is charged with stabilizing exchange rates and countries' economies.

Investigators (sometimes principal): The researchers, practitioners, and experts leading a particular inquiry.

*Joro*: A traditional Malagasy ceremony used to honor ancestors and ask for their blessing through a ritual sacrifice, usually of a zebu.

Landscape Development Interventions (LDI): A USAID-funded project in Madagascar.

Less Developed Country (LDC): A nation with a relatively low standard of living, and economic/industrial base.

*Lovantsika*: Malagasy word for inheritance or heritage.

Merina: An ethnic group generally found on the high plateau near Antananarivo

*Miaramilam-potaka*: Malagasy name for SMOTIG pioneers, which translates into "mud soldiers."

*Mpanjaka*: A Malagasy king (traditional leader).

Non-Governmental Organization (NGO): A local or international legally constituted entity that is not part of the state.

Northern Railway: The colonial-built Tananarive-Côte Est railway connecting Antananarivo and Toamasina.

Pioneers: The official name given by the French Colonial Administration to SMOTIG workers.

Post-Traumatic Stress Disorder (PTSD): A severe anxiety disorder that can develop after exposure to an event that causes psychological trauma.

Products of Primary Necessity (PPN): Essential household items such as salt, fuel, and staple foods.

Rapid Rural Appraisal (RRA): A research method typically used to elicit information in a participatory manner by empowering informants.

Rationality: The accounting for an action or belief.

Réseau National des Chemins de Fer Malagasy (RNCFM): The name of the Malagasy railway company when it was under public management.

Revolutionary United Front (RUF): A rebel group that fought in the civil war in Sierra Leone (1991-2002).

Right-of-way: a strip of land granted for a transportation facility.

Road Traffic Injury (RTI): Fatal and non-fatal injuries sustained as part of a road-based accident.

Rolling stock: vehicles that move on a railway (e.g., locomotives, railroad cars, coaches, wagons, etc.).

*Service de la Main d'Oeuvre des Travaux d'Intérêt Général* (SMOTIG): The forced labor program used by the French Colonial Administration to build large public works projects across Madagascar (including the FCE Railway).

Sierra Leone Government Railway (SLGR): A colonial-built railway in Sierra Leone, which was closed in 1974.

Sphere of action: “one of four partially autonomous and overlapping spheres of action and valued social practices” – the others being the state, the corporate economy, and political community (Friedmann 1998: 22).

Structural Adjustment Program (SAP): A set of conditions or policies developed by the World Bank or IMF for less developed countries, usually as conditions for loans.

Sub-Saharan Africa (SSA): The area of Africa south of the Saharan Desert. This term is sometimes used in the geopolitical sense to distinguish between Northern African countries and those that are located south of the Sahara.

Substantive rationality: Value-based rationality.

Tanala: An ethnic group found around the forests of southeast Madagascar adjacent to the FCE Railway.

*Tavy*: A form of slash-and-burn agriculture practiced in Madagascar.

Tanzania-Zambia railway (TAZARA): A post-independence railway built in partnership with the Chinese that crosses from landlocked Zambia to the Tanzanian coast.

Transportation-oriented civil society organization (TCSO): Civil society organizations dedicated specifically to transportation issues and/or infrastructure and services.

Triangulation: The process of developing accurate information through cross-referencing, discussion and comparison.

*Ujaama*: The Tanzanian national development project that included a “villageization” campaign.

Unité FCE: A consultancy team of economic, social and technical experts working on FCE rehabilitation efforts.

United Nations Educational, Scientific and Cultural Organization (UNESCO): A specialized authority within the United Nations that is focused on issues of education, science, and culture.

United States Agency for International Development (USAID): the United States federal government agency primarily responsible for administering civilian foreign aid.

Vetiver (*Chrysopogon zizanioides*): a perennial grass used in efforts targeting soil conservation and water quality management.

Working Group of Practitioners in Conservation and Development (WGPCD): An *ad hoc* group of development practitioners formed during Madagascar’s 2002 crisis.

World Bank: an international development institution that provides loans and grants to developing countries for capital programs.

World Health Organization (WHO): A specialized authority within the United Nations that is focused on public health related issues internationally.

Zatovo Mikalo Gasy (ZMG): A Malagasy band.

Zebu: A domesticated ox with a humped back and long horns and a large dewlap that can be found in Madagascar, India and other east Asian countries.



## **Abstract**

### **Civil Society Organizations and the Protection of Sub-Saharan Africa's Colonial Railways: The Case of Madagascar's Fianarantsoa-Côte Est Railway**

**by**

**Douglas A. Kolozsvari**

**Chair: Jonathan Levine**

**Colonial-era railways support the life needs of many communities and households in sub-Saharan Africa (SSA). Although the end of colonial rule removed some justifications used for their construction, as well as resources that supported these lines' infrastructure and operations, these railways still serve millions of people. Despite the important role they play in this infrastructure-poor region, a lack of resources has left many lines in various states of disrepair. Complicating efforts to maintain railway service, international development institutions (IDIs) have repeatedly relied on a relatively narrow economic rationality and loan conditions to ensure**

**governments stop supporting underperforming lines either by closing or privatizing them.**

**The case of a colonial-built Fianarantsoa-Côte Est Railway (FCE) in Madagascar, which has faced closure numerous times from various causes, provides insight into how effectively railway supporters can organize, support, and frame their arguments to preserve service. This case was also selected because the presence of civil society organizations (CSOs) dedicated to protecting the FCE was unique.**

**The findings show that the main CSO dedicated to protecting the FCE helped build ownership for the line among the local population and users based on its heritage value. This heritage was based largely on the sacrifice of ancestors who built the line – a trait the FCE shares with other colonial-era railways in SSA. The resulting sense of solidarity, and activities in which they participated, curbed farming practices that threatened the line’s infrastructure. This solidarity also facilitated the creation of a second CSO that protected the line from saboteurs during a political crisis. Although officials from IDIs and government had little direct contact with CSOs, the noticeable atmosphere of civic engagement along the line affected their opinions about the FCE.**

**This case holds lessons for planning theory and policymaking. Balancing traditional economic justifications for operating transportation services with other benefits, finding a champion and building solidarity, and recognizing the value of study tours can improve transportation decisions and outcomes. Likewise, planners and policymakers can encourage the formation, sustainability and active involvement of CSOs by ensuring they remain democratic, transparent, well funded and engaged with all stakeholders.**

## **Chapter 1**

### **Introduction**

#### **I. Continuing Importance of Colonial-era Railways in Sub-Saharan Africa**

Colonial-era railways have played key roles in many less developed countries (LDCs), particularly in sub-Saharan Africa (SSA) where transportation infrastructure—of any mode—is sparse. Colonial powers financed and built (often with the help of forced labor) scores of railways in this region. The footprints of colonial-era railroads, which almost invariably run from the countries' ports to the inland areas, demonstrate their faithfulness to the goals of the colonizing country. Specifically, European powers sought railways to assure their own political and military control, access to natural resources and benefits from new markets for their own economic advantage (Hilling 1996: 77; Simon 1996: 50; Gray 1999: 87). Indigenous people often worked for free building or maintaining these railways. For better or worse, these lines changed the territories and the people who lived there.

Colonial-era railways continue to play an influential role in LDCs' transportation systems and economies. Many lines continue to serve as the backbone of national or regional transportation systems and they support the livelihoods of millions of people. Besides transporting bulk items for either importation or exportation, railways also transport smallholders' goods, bring children to school, provide food to urban centers and evacuate the sick. People make their living by working for these lines, by transporting their wares on them or by selling goods to their passengers. Railways can even prevent deforestation because they enable people to support their families without having to resort to slash-and-burn agriculture (Freudenberger 2003: 142).

Yet despite their continuing importance, these railways' conditions vary substantially. Some countries have ceased or reduced railway service, thereby producing undesirable consequences for people at the local, regional and even national level. Many LDCs had railways at independence that required more financial and technical resources than they had available, and these countries did what they could to keep the train whistles blowing. The departure of colonial powers had taken away the source of funding that maintained many colonial lines and kept them operating. Just over 70 percent of African nations still have railways operating within their borders today (see Appendix A) – most of which were built in the colonial period. It is clear from the literature and news reports that even on some of the most heavily trafficked lines that performance and conditions can be extremely poor (Hilling 1996: 104-105; Bullock 2005: 27; Bullock 2009: viii). A line's reliability affects many people's decisions about whether to continue using railway service or seek alternatives. Declining use reduces revenue and makes covering operating and maintenance costs more difficult, which means they have increasingly come to depend on external funding sources. Many LDCs have not been able to adequately subsidize these lines even after receiving an infusion of funding.

The lack of financial resources for maintaining, operating and extending LDCs' transportation systems has impacted colonial railways and the populations that depend on them. While all countries have limited budgetary resources for transportation provision, the gaps between LDCs' revenues and their transportation needs are indeed greater than in developed countries. Most LDCs do not produce the railway equipment necessary to maintain a railway's rolling stock and infrastructure. Importing their lines' infrastructure and vehicle spare parts reduces these countries' purchasing power (Moriarty and Beed 1989: 128). Weak currencies and expensive shipping costs factor into high maintenance costs that have led LDCs to defer maintenance and renewal projects. So even if railways are not intentionally shuttered, many close due to benign neglect caused by how finite resources are distributed to a country's many needs.

Decisions about transportation-infrastructure investment have traditionally been the purview of government. Governments must make decisions on how to allocate scarce resources between competing transportation alternatives. Constructing new roads, port facilities or airports potentially draws funding away from maintaining and operating existing transportation infrastructure such as colonial-era railways. Moreover, railway maintenance and operations already vie for their share of funding against essential roadway maintenance and rehabilitation. The relatively high costs necessary to maintain even basic railway operations and their geographically concentrated benefits partially explain why LDCs in SSA have invested a greater proportion of their scarce transportation funding in roadways.

The lack of internal funding sources, though, has also resulted in the participation of international development institutions (IDIs) in efforts to support these countries' transportation systems. Countries have received technical and financial support from IDIs, such as the World Bank and UNDP, for decades. In fact, IDIs are the largest source of non-state funding for transportation projects in LDCs, but in the case of railways, these institutions tend to fund new projects rather than maintain existing networks (Hilling 1996: 102). IDIs' penchant for financing new construction, though, has meant existing railways must compete with an even larger network of roads for maintenance funds. Schroeder explains that because much of the road construction and maintenance in LDCs is externally financed by IDIs, this brings these institutions—and their experts, staff, and consultants—in as “stakeholders” (Schroeder 1997: 396). He notes that IDIs rarely take entirely passive roles (*ibid.*). In fact, IDIs have the power to provide or block financing that could help these distressed countries and their crumbling transportation systems. This has had significant consequences for the railways in SSA given that these countries are highly dependent upon foreign aid.

Although IDI experts often portray their rationality as positivistic and their methods as objective, many of them in fact adhere to neoliberal theory that maintains this appearance but has an ideological bent. Experts who base decisions on a neoliberal approach embrace an ideological stance whereby the state and

public should be as much removed from decisions about transportation services as possible (World Bank 1983: i; Moore 1993: 7; Simon 2008: 96-97). Railways' dependence on state subsidies for renewal and even operations, therefore, made them targets of IDIs' neoliberal policies. IDIs have used their power to push for reforms or loan conditions that have led to many spur line closures, the halting of passenger service on some lines or even the closing of entire railway systems (e.g., Sierra Leone). Decisions to suspend railway service on unprofitable lines are being made by national governments and IDIs with little to no input from local communities.

Yet despite the lack of financial resources and the influence of IDIs in pushing their perspectives, the public has not always accepted decisions adversely affecting their interests. They have exerted their own pressure through various means—mostly through political action—to protect a railway facing cutbacks or an imminent closure. This can preserve service, but does not lend itself well to long-term planning or coordination with other important actors in the transportation decision-making process (e.g., IDI staff). Action by civil society often tends to be geographically concentrated, *ad hoc* and ephemeral. It is within this context that this dissertation considers the role that an organized civil society can have in impacting transportation outcomes in LDCs – particularly as they relate to preserving benefits from railway service in SSA.

## **II. Benefits of Railways in Less Developed Countries**

Even as railways have disappeared or as service quality degraded, their importance has not necessarily diminished. Gakenheimer notes that LDCs' existing transportation systems are woefully inadequate to serve existing demand (Gakenheimer 1999: 673). Many colonial-era railways continue to serve as the backbone of national or regional transportation systems and support the livelihoods

of millions of people.<sup>1</sup> The lines that still offer passenger service often act as lifeline transportation service for vulnerable populations in LDCs, including long-distance migrants and commuting workers (Simon 1996: 23).

Most railways built in SSA had some type of extractive purpose in mind. From a strictly macro-economic perspective, these lines can contribute to a country's gross development product (GDP) by facilitating the exportation of unfinished resources such as ore, lumber and agricultural goods. To many experts, moving bulk goods to increase GDP is a benefit, if not *the* benefit, of these lines. A railway's worth has often been measured by the amount of freight that it transports, regardless of whether or not resource extraction causes social, environmental or political harm. So while the yields of a mining operation or logging concession can increase a country's GDP thanks to the lines transporting these raw resources, researchers have argued that they actually increase LDCs' dependence on foreign countries while doing little to improve life for the average person (Mabogunje 1981; Pirie 1982 in Simon 1996: 51-52).

Even if the development benefits can be ambiguous at the national level, railways have played a clear role in reorganizing space at the regional level by enlarging existing populated areas and even creating new cities and markets next to these lines (Hilling 1996: 75; Pourtier 2007: 193). Sometimes this change was top-down and dramatic such as in Tanzania when the government forced rural populations to move closer to the TAZARA Railway as part of the *ujaama* "villageization" campaign (Monson 2006: 114-115). Yet other cases show a more organic evolution over time with varying effects of the railway's influence on its surroundings. Railways have been estimated to have a direct influence for up to 25 miles (40 kilometers) of the railway (Kolars and Malin 1970: 231). In Mozambique, districts with a railway presence had a much higher average density than those areas served exclusively by roads (Béranger 2006: 343). The denser development

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<sup>1</sup> Just three colonial-era railways in SSA, the Republic of Congo's Congo Ocean Railway, the Democratic Republic of Congo's Matadi-Kinshasa Railway and Angola's Benguela Railway, serve populated areas totaling more than 11 million people.

along railways provides those people living nearby with the opportunity to participate in regional markets while enabling the state to save money on public services (ibid.: 344). The accessibility of services may, in fact, help stem urban migration to already overburdened cities; railways certainly help structure urban-rural relations by acting as an economic regulator, an integrator and a means of repatriation (ibid.: 343). For example, urban migrants often maintain connections to their rural families, which they support through remittances (Morella et al. 2010: 126).

The potential of railways to produce environmental benefits is often quite high. Railways are viewed as an environmentally friendly mode of transportation due to their ability to transport their loads in a fuel-efficient manner (Galenson and Thompson 1994: 41-42).<sup>2</sup> This reduces the need of LDCs to import refined fuels, which cuts down on greenhouse gas emissions. A dispersed population understandably increases the footprint of agricultural or urban development (Béranger 2006: 344). The loss of pristine lands to agriculture or urban uses has direct impacts on wildlife, water systems, etc. While railways have and continue to impact the natural environment through land conversion or resource extraction, many of the existing colonial railways have long-since shifted to an environmentally protective posture. Roads on the other hand have superseded railways in their ability to open more land to settlement and exploitation.

Railways can also protect existing infrastructure investments because their ability to carry heavy loads reduces damage to the roadway network. Rural road maintenance in SSA particularly suffered during the 1980s due to structural adjustment programs (SAPs) that placed strict cost controls on government spending (World Bank 1988 and Riverson et al. 1991 in Bryceson et al. 2008: 461). Such restrictions came as countries continued to adopt liberalized trucking policies that further increased truck traffic (Griffiths 1995: 186). Creating this “enabling

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<sup>2</sup> The ability to deliver on this promise does, however, depend on many variables including how effectively the railways are used and the alternatives that exist (Galenson and Thompson 1994: 41-42).



environment” through liberalization came at a great cost to Africa where now over 20% of main roads and 40% of rural roads require rehabilitation (Foster and Briceño-Garmendia 2010: 10). Given the tendency of African road operators to overload their vehicles (Bullock 2005: 30), their vehicles have the high potential of damaging roads – particularly during inclement weather. Meanwhile, road maintenance costs are increasing due to a lack of competing contractors and rising inputs, which some researchers suggest will likely remain on an upward trajectory (Gwilliam et al. 2010: 225). Keeping a railway operational and reliable would help prevent a shift of traffic, especially heavy loads, to already tenuous roads.

Reducing road traffic can also produce public health benefits by keeping roadway accidents to a minimum. If railways and roadways were compared for safety, roadways would lose almost every time no matter how the numbers are parsed (Simon 1996: 179). Roadway traffic accidents are a significant cause of morbidity and mortality in Africa with regional mortality rates trailing only HIV/AIDS and malaria (Hyder et al. 2008: 1108; Gwilliam 2011: 37).<sup>3</sup> According to the World Health Organization (WHO), Africa leads the world in road traffic injury (RTI) deaths among those who are less than 15 years old with consequently many years of lost life (Hyder et al. 2008: 1108). While it is possible to calculate an economic value for lives lost (i.e., “value of statistical life”), these figures are highly variable and mostly unavailable for LDCs (Bullock 2009: 19-20). Simon notes, “apart from the overall cost in terms of lives, medical treatment, damage and repairs, among the dead are many religious, political and business leaders and other professionals for whom long-distance work-related travel is regular. Developing countries can ill afford to lose so many skilled people” (Simon 1996: 179). On a continent that suffers from extremely high RTI fatality rates, shifting passenger and

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<sup>3</sup> A study found that individuals involved in road traffic accidents were more likely to experience posttraumatic stress disorder than the general population; professional treatment for individuals suffering from PTSD, though, is very limited in SSA (Iteke et al. 2011: 1, 9). Chilson’s book *Riding the Demon* describes the anxiety that grips many Africans when they use the roads and the ways they mitigate their fear (Chilson 1999: 15).

freight traffic to relatively safe railways would protect both vehicle occupants and other road users (Bullock 2009: 18-19).

Railways also provide health benefits by providing rural populations with affordable access to medical attention. Many roads become impassable during certain times of the year, making travel by car to reach health services less reliable. Moreover, dispersing the population more—moving them farther from health services—increases healthcare-related costs for everyone and likely adversely impacts people’s health. This could be why in Mozambique, the regions served by rail rather than just roads have a higher life expectancy and lower infant mortality rate (Béranger 2006: 340, 344).<sup>4</sup> In South Africa, the Transnet railways even offers the “Phelophepa health train” – a mobile clinic on a train that provides affordable primary healthcare to roughly 45,000 poor rural inhabitants annually (Berry 2010).

Although evaluations often examine railways’ effects on GDP or impact on a government’s budget (Galenson and Thompson 1994; World Bank 2000: 21), they pay less attention to the vital roles these lines play in stimulating regional economies as well as preserving individual and household livelihood. Individuals make their living by working for these lines, by transporting their wares on them or even by selling goods to passengers. In Mozambique, the railway serves as the “regulator of exchange and the prices of foodstuffs” in nearby villages – increasing the revenue of local farmers and merchants more than if they relied solely on the local market (Béranger 2006: 350). Decreasing railway service would actually raise the price of transporting all goods on the roadways (ibid.: 349-350), at least in the short-term, which would have a particularly significant impact on households buying imported products and selling their own wares. For example, providing essential revenue to the population selling their agricultural products has proved essential for reducing malnutrition along the Mozambique railways (ibid.: 355).

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<sup>4</sup> A more detailed study is needed to determine causality.

These lines also provide benefits to culture and society. Many have claimed that railways foster national unity and pride, as is often cited in the case of Transgabonais railway (Schissel 1982: 2280; Yates 1996: 179). Although the evidence for fostering a broader sense of national unity is lacking, railways have united populations at the local and regional level thanks to shared interests and pasts. For example, the Bassa living in proximity to the Transcam I Railway in Cameroon viewed this line as a heritage from the ancestors who were forced to build it (Abé 2006: 224). The population opposed elimination of railway stops because they believed it would lead people to forget these workers' sacrifices and lose some sense of their self-identity (ibid.). Railways also facilitate regional integration and prevent isolation (Pourtier 2007: 194). Whereas economists write-off the value of infrastructure that has already been built and exceeded its useful life as "sunk costs", some people see the intrinsic value of protecting railway infrastructure due to these lines' intangible heritage.

If a railway can bring people together, it is plausible that the loss of one can lead to conflict. The World Bank made the closure of the Sierra Leone Government Railway (SLGR) a loan condition for a highway infrastructure project – an action taken in the name of economic rationality. Although the highway was supposed to serve the same areas, it never reached some communities that traditionally opposed sitting President Siaka Stevens and took decades to reach others (Abraham and Sesay 1993: 120). Richards asserts that cutting off railway service only served to alienate the area from the rest of the country and enable the rebel force Revolutionary United Front to build an alternative regime 'from below' (Richards 1996: 140). This seems a plausible explanation given that shortly before his death, Stevens stated that the only decision he regretted making during his presidency was closing down the SLGR (Abraham and Sesay 1993: 120). Although many factors likely contributed to the initiation of the country's lengthy civil war, isolating this area would certainly have increased discontent with the Stevens government. Exacerbating and protracting the conflict would have had an economic toll from lost

lives and economic activity as well as post-conflict reconstruction investment – one perhaps many times the savings garnered by closing the railway.

Experts focused solely on performance measures such as the line's profitability or contribution to GDP risk overlooking many railway benefits. Given the importance these railways have for so many people and communities, it is not surprising that the users and beneficiaries are motivated to protect lines when threatened in some way. Yet this raises important questions about when railway beneficiaries decide to act, what form their collective actions take and how they work to protect their interests within the context of existing power relations and constraints. The next section explains in greater detail why civil society organizations (CSOs) dedicated to transportation issues are the focus of this study.

### **III. Focusing on Civil Society Organizations in the Transportation Sector**

While researchers and the public frequently condemn the graft, favoritism and politics that affect transportation decisions, surprisingly little analysis is provided of the actual processes to understand whether other concealed factors also impact decisions. This lack of attention is particularly pronounced in examining how average *and* marginalized transportation beneficiaries make their voices heard in this process. The role of civil society in transportation decision-making in LDCs is particularly understudied.

Although many other sectors in LDCs, and SSA in particular, have dedicated CSOs, organizations dedicated to transportation issues in LDCs are relatively rare. Researchers have not critically examined the role and efficacy of CSOs in transportation decision-making in LDCs. The *raison d'être* of transportation-oriented civil society organizations (TCSOs) is to promote their members' actual or perceived transport interests. However, actions taken by civil society to support their transportation interests tend to be short-lived (e.g., preventing a planned station closure or repairing damaged infrastructure). While self-help groups dedicated to maintaining rural roads appear sporadically in the literature, these

CSOs do not appear to do much more than repair roads leading to their respective villages. Our knowledge is incomplete as to how TCSOs function, whether they attempt to influence transportation policy or related decisions, and whether they make any difference for their members' interests.

The nature and capabilities of civil society's lobbying appears to differ substantially from the highly organized, well-funded efforts of various private or political interest groups (e.g., trucking lobby, unions, political parties, etc.) that promote their long-term transportation interests in various venues. My main research objective, therefore, is to determine the capacity of CSOs to aid the preservation of colonial railways in sub-Saharan Africa and other developing regions of the world. My secondary objective is to scrutinize activities and framings affecting the transportation decision-making process in LDCs by TCSOs and the railway supporters who work with them. The following section discusses the research questions and arguments used to reach these objectives.

#### **IV. Research Questions**

My first set of questions examines the role and importance CSOs have played in attempting to avert a railway closure. Specifically, what effect does the presence of CSOs have on preventing railway closures? In addition, what makes these CSOs effective or ineffective? I argue that CSOs can raise the awareness of government officials to the needs of local populations that depend upon a railway, but they have little direct impact on IDIs. I also propose that while CSOs may not exert sufficient direct political pressure on IDIs to reverse their conclusions, they can still play an essential role in preserving railway service when a railway faces closure through neglect.

The second primary research question asks, what strategies have CSOs successfully used to motivate their prospective members and galvanize broad support for an unprofitable railway facing a permanent closure? I examine how CSOs and their allies offered different arguments based on whether the intended

audience was local, national or international. I argue that the effectiveness of such framings (i.e., local livelihood, environmental protection, cultural values) depend on how they are conveyed and whether they coincide with the intended audience's interests.

My dissertation considers these questions by examining the role of TCSOs and their actions aimed at preventing the closure of “unprofitable” railways. Their existence and actions are both understudied as a transportation phenomenon just as colonial railways are underappreciated as a transportation resource. I direct my research questions specifically at the colonial-era Fianarantsoa Côte-Est railway (FCE) in Madagascar, which has been threatened with closure numerous times, in order to better understand how its advocates have organized, supported, and framed their arguments to preserve railway service. In the case of the FCE, a TCSO called *Association des Détenteurs d'Intérêts de la FCE* (ADIFCE) helped further the railway's rehabilitation efforts by working to stop landslides caused by local farmers practicing slash-and-burn agriculture too close to the railway. A second group called *Andrimasom-Pokonolona* (ANP), which in this context was a TCSO, actively worked to protect the line's infrastructure from saboteurs during the 2002 political crisis when road bridges were being bombed. The next section discusses in greater detail why the FCE is an ideal case to answer my research questions.

## **V. Case Selection**

The FCE shares many traits with other colonial-built railways in Africa and elsewhere in the world. The FCE's layout from the port city of Manakara to the central highland city of Fianarantsoa reflects the strategy of railway building across SSA. This furthered the colonial objective of facilitating the export of natural resources and the import of finished products from the colonizing countries. Like other narrow-gauge railways, the French used the FCE primarily to export cash crops (Freudenberger and Freudenberger 2002). One study notes that the French military also pushed for the FCE because it served France's “strategic” interest –

namely advancing the cause of a navigable 500-kilometer canal between the main port at Tamatave and Manakara (Sorca-Beceka 1966: 10-11). Madagascar's first colonial Governor-General, Joseph Gallieni, saw the *canal des pangalanes* as key to bolstering both local trade and the quick provisioning of the armed forces stationed inland (Thompson and Adloff 1965: 294). Still, the railway's core function was and ultimately remained true to colonial form with the exportation of cash crops such as bananas, cloves, and coffee (Freudenberger 2003: 139).

Just as in other colonies, the French built the FCE using forced labor that resulted in the deaths and suffering of many indigenous people (Thompson and Adloff 1965). The French constructed the FCE between 1926 and 1936 using a forced labor program disguised as military service called Service de la Main d'Oeuvre des Travaux d'Intérêt Général (SMOTIG). France faced intense criticism about the use of forced labor in SMOTIG from both members of its parliament and from the International Labor Organization (Sodikoff 2005: 422). Besides documented cases of physical and psychological abuse by commanding officers and work bosses, disease, landslides, tunnel collapses, mine explosions and starvation killed thousands of Malagasy workers (Sodikoff 2005: 419; Weisema et al. 2001: 27). SMOTIG continues to be one of the most despised colonial programs implemented on the island (Sharp 2003: 82). Yet this program also was important to the more recent rehabilitation of the line, which realized its greatest gains between 2000 and 2005.

While building a narrow-gauge railway for agricultural purposes saved colonial administrations on initial construction costs, it now makes acquiring the non-standard replacement rolling stock more difficult and expensive. Moreover, the FCE previously transported fuel, but political considerations from powerful lobbying interests have cut off this lucrative revenue stream in favor of tanker trucks. The FCE's relative unprofitability has repeatedly made it a target of some IDIs that seek to reduce government expenditures through the cessation of railway service (Freudenberger 2003). However, the fact that the FCE continues to operate despite unfavorable evaluations and the many trials it has endured, while other colonial railways in SSA have since closed indicates that important differences exist.

Despite what is clearly a rich history behind the FCE, this dissertation treats the CSOs involved in its protection as the unit of analysis. Choosing to focus on TCSOs rather than the FCE shines a spotlight onto the importance of transportation service to people and does not assume *a priori* that transportation service or infrastructure necessarily possess intrinsic value. The case of two CSOs dedicated to preserving the FCE in Madagascar promises to show how such groups can impact processes usually reserved for government actors, donors and well-funded special interests. In examining the attempts made by TCSOs to keep the FCE running, I aim to address deficiencies in the transportation literature about the participation of these groups; it will also contribute to the specific knowledge of history and planning processes for Madagascar.

Focusing on the FCE as a “critical case” provides researchers, practitioners and advocates with a concrete example of how TCSOs make a difference in transportation outcomes. A researcher can further define a critical case as either a “most-likely” or “least-likely” case where someone would most likely or least likely expect to find certain conditions and outcomes based on our preexisting knowledge (Flyvbjerg 1998: 74-78). The FCE is certainly a railway we most likely would have expected to close already given its age and limited resources. Therefore, the FCE is not only a critical case given the active and organized efforts by civil society, but also given the possibility that civil society participation could explain why the line had not already closed.

## **VI. Methods**

In order to answer the questions posed above for the case of the FCE, I used three qualitative methodological approaches targeting various sources. The first research method, the use of archival material, helped answer these questions and also developed the contextual background and history of events as well as railway-related policies – both generally and specifically in Madagascar. Archival research also helped me formulate questions for the second research method: the use of



semi-structured interviews (SSIs) with key informants. These informants included public officials, railway workers, IDIs' and development organizations' staff, TCSO members, and other key actors in the communities along the railways. I also used rapid rural appraisal (RRA) techniques with larger groups in communities along the railway as a way to obtain perspectives of civil society members as well as to verify information and minimize bias collected during those interviews. These interviews also proved useful in verifying information contained in archival documents and conveyed in individual SSIs.

## **1. Archival Research**

The archival materials reviewed to answer my research questions came from both formal government archives and the collections of individuals who worked on the FCE dossier. I examined colonial government reports, correspondence, photos and other materials located in various research centers, archives and libraries including: the French National Library (Paris, France), the Archives Nationales d'Outre-Mer or ANOM (Aix-en-Provence, France), the Malagasy National Archives (Antananarivo, Madagascar), the Foiben-Taosarintanin'i Madagasikara or FTM (Antananarivo, Madagascar), the Académie Nationale Malagasy (Antananarivo, Madagascar), and the Agence Nationale d'Information (ANTA) in Antananarivo, Madagascar. I also retrieved reports on the use of forced labor in Madagascar from the International Labor Office (ILO).

Documents and other materials generated after independence came from a variety of public and private collections. The World Bank Archives (Washington D.C., U.S.A.) was a rich source for information about the FCE from independence to the mid-1990s – particularly about the World Bank's effort to close the railway. The private archives of Karen Freudenberger (Director of the FCE-Rehabilitation project) as well as those of the USAID-financed programs (i.e., CAP, LDI, ERI) based in Fianarantsoa, Madagascar contained more recent information (e.g., reports, power points, photos, correspondence, newspaper articles and other documents)

related to the FCE rehabilitation effort that started in the late 1990s. Particularly useful reports and documents included information about the initial formation and structure of ADIFCE, its members, outreach strategies to local communities during the railway's reconstruction effort and the potential effects of a railway closure. A key actor who helped obtain donated resources from Switzerland, Frank West, had a number of reports and a video documentary about the FCE. Individuals living along the railway also provided relevant documents, journals and other materials.

Documents and information found in archives have the potential to be biased or incorrect, but may be revealing in their own right. My research required analyzing data critically, including understanding the circumstances and context under which documents were produced. Identifying the undercurrents and organizational bias that affected the production or absence of documents in the various archives was an essential task. Archival materials were therefore critically reviewed by considering who the authors were as well as who they expected their intended (and expected) audiences to be.

## **2. Semi-Structured Interviews**

My research relied heavily on SSIs with 36 key informants knowledgeable about the FCE's history extending from colonial times up to present day (see Appendix B). Individuals familiar with the FCE on a firsthand basis during colonial times were exclusively Malagasy—namely elders and traditional leaders—and these interviews occurred in person in Madagascar. A translator was present to translate to and from either Malagasy or French as necessary. Informants knowledgeable about the FCE after independence included public officials, consultants or staff from government agencies, IDIs, or development projects. Some of these individuals were expatriates. These SSIs took place both in Madagascar and over the phone. Given the nature of the development field, many IDI staff and consultants had transitioned to other projects around the world since the effort to rehabilitate the FCE. A handful of informants were familiar with the World Bank's effort to close the FCE during the

1980s. Other informants from IDIs and USAID-financed development projects provided a comprehensive description of the efforts to revitalize the FCE starting in the late 1990s to present. IDI staff members who worked on the FCE dossier provided a better understanding of what arguments affected their opinions about the railway, how they were conveyed and who communicated them.

These informants also helped me learn whether CSOs' appeals were heard at the international level and whether they affected IDI support. This included information about significant events that threatened the FCE as well as events that paved the way to its partial rehabilitation. They also included detailed information about the formation of different advocacy groups (i.e., TCSOs), their members and their activities. I also interviewed individuals in a leadership position of one TCSO about the formation and role of their group. In addition, I interviewed traditional leaders (*Mpanjaka*) and local elected officials about the FCE. FCE employees, including its director, provided useful information about the state of the railway at various times and the role of TCSOs in keeping it running.

### **3. Rapid Rural Appraisal**

The third method I used, RRA, allowed me to develop a more comprehensive understanding of the effort to rehabilitate and protect the FCE from the perspective of its users and villagers who depend on it. RRA has been most plainly described as a coherent (if not well-defined) “family of techniques” for outsiders to learn about local people’s lives (Chambers 1983: 199). As its name implies, researchers have used RRA to “elicit” valid information from people living in rural areas—people who are often overlooked or excluded—about their living conditions and environment in a “cost-effective and timely manner” (Chambers 1997: 112-113). Although the use of the word “rural” seems to limit RRA’s scope, researchers can readily extend RRA to urban areas because its main strengths are the its philosophical chassis and flexible techniques that generate information while enabling all actors to better learn.

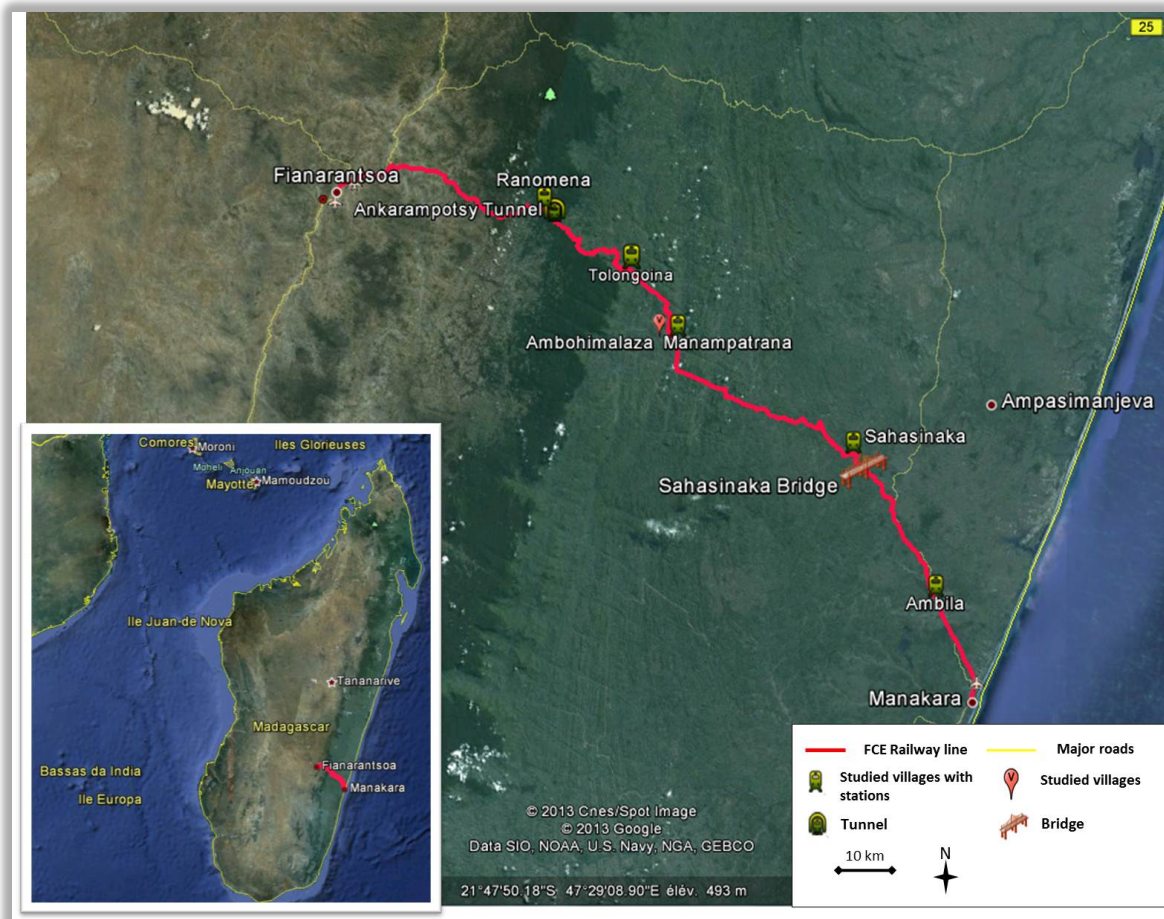
RRA formally emerged in the 1970s as a response to disenchantment by development researchers and practitioners over the duration, cost, and flawed results of traditional development research methods in rural environments (ibid.: 110-111). Recognizing how both the “long-and-dirty” methods like rural survey work and the “quick-and-dirty” expeditions of rural tourism could yield inaccurate or unreliable information, these experts started experimenting with research techniques that could deliver valid results in a shorter timeframe with fewer associated costs (Chambers 2008: 72).<sup>5</sup> Eventually these techniques formally melded into the “fairly-quick-and-fairly-clean” method labeled RRA. At RRA’s heart lies the impetus to do research that encourages effective learning to discover new information, while also minimizing bias and empowering informants to participate and learn about their own lives (Chambers 1997: 156-157).

During the course of my research, I spoke with 20 focus groups with approximately 150 members of the general public about the FCE. The people I interviewed in this process can be generally classified as falling into the following focus groups: women; members of TCSOs (i.e., ADIFCE or ANP); elders and traditional leaders; descendents of FCE workers; merchants; and employees of the FCE. I selected six villages (five different stations) along the railway to conduct my fieldwork targeting the general population: Ranomena, Tolongoina, Ambohimalaza, Manampatrana, Sahasinaka and Ambila. I selected villages rather than the termini cities of Fianarantsoa or Manakara because ADIFCE and the USAID-funded FCE-Rehabilitation project (FCER) focused on populations living in the rural villages. I selected Ranomena because its ethnic composition is primarily Betsileo, and it sits in the heart of the remaining forest corridor and has no access to regional roadways. It is also one of the smaller village stations along the line serving a population that is dispersed over a larger area. I selected Tolongoina, Manampatrana and Sahasinaka because these are the largest villages that have populations living relatively close to the station. Ambohimalaza is a small village located approximately three kilometers

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<sup>5</sup> “Dirty” in these cases means *not* cost-effective.

from the Manampatrana station and is representative of many of the villages located slightly farther from the FCE, but still within walking distance to the line. The ethnic composition of these villages is primarily Tanala, who are known for practicing *tavy* (slash-and-burn agriculture). Tolongoina also has a relatively large contingent of immigrants. These three stations all have access to regional roadways, but the conditions of the roads and bridges are rather poor. They also received a disproportionate amount of attention from those working to rehabilitate the FCE. I selected Ambila to represent another smaller village along the FCE. Its population is comprised of Antemoro, the third ethnicity along the line. Of all the selected villages, it has the best road access.



**Figure 1 FCE Railway and studied villages**

Rather than replace traditional SSIs or archival research, RRA tools complement them. For example, I used participatory mapping and transect walks that allowed

villagers to identify specific locations of historical or social significance. I also used historical matrices with focus groups, which facilitated understanding the timeline of certain events with villagers and yielded valuable details about strategies they employed at different times to preserve railway service. Drawing Venn diagrams on butcher paper also proved useful in understanding the conflicts between various actors and groups as well as how these informants perceived the nature of their relationships (e.g., power relations). I also used various RRA tools and techniques to inquire about villagers' interaction with or participation in TCSOs working on the railway rehabilitation.



**Figure 2 Practicing RRA in Madagascar**

Given the efforts of one TCSO in particular to reduce the harmful agricultural practice of *tavy* along the right-of-way, I conducted interviews with villagers who use land along the railway and who were asked to abide by traditional law (i.e., the *dinabe*) that limited this practice. I also used RRA tools to develop a better understanding of the events surrounding the 2002 crisis when villagers camped along the railway tunnels and bridges to prevent sabotage. This included documenting how the CSOs' organizing and support strategies affected villagers during the crisis. I also asked questions about the FCE's colonial past and the

heritage railway slogan to better understand how this reference motivated wider participation by the public to protect the railway.

## **VII. Dissertation Approach and Organization**

I present the information collected to answer the research questions using a three-article model. The reader can expect the next three chapters of the dissertation to take the form of stand-alone articles. Together these chapters tell a complicated, but coherent story in a relatively succinct way. They cover the history of the FCE from its colonial planning and construction up through its rehabilitation. In addition, they show the pressures placed upon the railway and the Malagasy people who use the line. Readers will learn who the major actors were that participated in the FCE's story as well as the rationalities, motivations and politics to which they were subjected or which they furthered. Moreover, readers will better understand the role of CSOs in the transportation sector of LDCs and specifically in the case of the FCE.

### **1. Heritage Infrastructure Constructed, Constructing Heritage Infrastructure (Chapter 2)**

In the next chapter, titled "Heritage Infrastructure Constructed, Constructing Heritage Infrastructure," readers are provided with key information about the FCE's history and why the forced labor program used to build it was so memorable. More than just impressive feats of labor, African colonial railways' histories endow them with a deep sense of heritage. Yet as the case of the FCE shows, heritage is as much a process as it is a definition. Railways' histories, and efforts to recall them, can make them *heritage infrastructures* rather than lines simply inherited from colonial powers.

Of particular importance to the FCE's sense of heritage is the colonial work program used to build it: the *Service de la Main d'Oeuvre des Travaux d'Intérêt Général* (SMOTIG). Although researchers concur that SMOTIG was a forced labor program, they offer a mixed picture of the program that insufficiently explain why

the FCE evokes such a strong sense of heritage. SMOTIG has been called both the worst form of colonial enslavement (Sharp 2002: 217) as well as a “milder” form of past labor practices (Frémigacci 2006: 180-181).

This chapter aims to reconcile the conflicting views of SMOTIG to shed light on why the FCE has such a strong heritage link. I offer another perspective that SMOTIG can simultaneously be called the safest yet most pernicious form of forced labor to befall the Malagasy people. Specifically, I argue that French efforts to allay international concern about SMOTIG actually inflicted deeper wounds on Malagasy society and these have endured longer than the injuries caused by other types of forced labor. I critically reevaluate its major aspects, including its “educational” component, casualty rates and labeling as “slavery.” I offer new explanations for its infamy by arguing that moving Malagasy men away from their communities for years at a time heightened their anxiety of falling ill or dying far from ancestral tombs with no guarantee of repatriation. This chapter also examines how the sense of heritage has been reinforced through public education curricula, story telling and public relations campaigns.

Besides strengthening the explanation of why the FCE is a cultural heritage for Malagasy, this chapter highlights how the shared suffering by colonial subjects could be harnessed to protect other African railway infrastructure facing similar challenges. This chapter explains how the events in colonial railways’ past can imbue them with a sense of patrimony around which today’s supporters can rally. In the case of the FCE, also dubbed the Heritage Railway, the line’s supporters used its lamentable colonial past to galvanize public support. Extensive community support proved vital during post-colonial rehabilitation projects as well as efforts to protect the railway from sabotage, theft and natural events. When threatened with closures caused by cyclones or sabotage during the 2002 political crisis, supporters rallied public support to protect the FCE’s infrastructure based on this idea of heritage. For example, the TCSOs ADIFCE and ANP, used a slogan appealing to the railway’s colonial past: *Harovy ny Lalamby fa Lovantsika* (“Save the train because it is our heritage”) to unite communities behind efforts to protect the railway.



## **2. Rationality and Railways: Hitting a Moving Target (Chapter 3)**

Chapter 3, “Rationality and Railways: Hitting a Moving Target,” provides readers with the context necessary to understand transportation decision-making processes in LDCs. It lays out who the actors are that typically participate in these processes and what rationalities they use to guide their decisions. It also examines how these forms of rationality impact colonial-era lines and how railway supporters can change the positions of those powerful interests who typically shape decisions. Although this chapter focuses on railway supporters more broadly, understanding the context of transportation investment and decision-making is key to understanding the role of TCSOs in the transport sector and how they can impact the policy-making context.

Understanding how certain rationalities and values impact the transportation sector is of particular importance to explaining why railway service continues to diminish despite the important role it plays. This chapter argues that ideological framings within the development and transportation fields have unduly influenced railway service in LDCs. Railways in SSA have largely not fared well under the development and transportation fields’ positivist and neoliberal framings. Positivism in transportation planning has promoted the view that decisions could be made objectively, and it has held efficiency (e.g., economic) as the ultimate guiding principle.

Specifically, this chapter examines how neoliberal theory and positivistic analyses used by IDIs have influenced transportation investments in LDCs and with respect to railways in particular. Given the belief that government should limit its involvement and responsibility for transportation operations has not benefited railways where government typically plays a large role. IDIs wield significant power through their financing of LDCs’ infrastructure, which means they have the ability to assert their perspective through conditions they attach to the funding they provide.

IDIs are important players when it comes to transportation investment in LDCs. As institutions, they embody particular values and rationalities that guide their

practice. They have largely grounded their evaluations and policies in positivist terms. Their use of quantitative methods masks what many experts, particularly critics, have termed neoliberal theory. The primary defining quality used to label actors and institutions as neoliberal has been their belief that removing “state ‘distortions’ of markets” (including transportation subsidies) creates the conditions for macro-scale economic growth and prosperity (Ferguson 2006: 11). This perpetuates a narrow view of railways as best suited only for exporting raw natural resources.

As demonstrated in the case of the FCE, though, IDI staff can be persuaded to consider other forms of rationality and arguments. Railway supporters used certain strategies to sway IDI staff. This included utilizing both quantitative tools and qualitative means to make the case for preserving the FCE. For example, traditional cost-benefit analyses (CBA) can be modified. Studies of the FCE showed that keeping the railway operational would prevent deforestation of roughly 100,000 hectares of tropical forest over 20 years. Railway supporters helped broaden the CBA to include this metric. Yet qualitative approaches made to convey the line’s importance, including study tours that brought IDI staff to meet railway beneficiaries and see the FCE with their own eyes, also made a difference. The most striking turn-around came from the World Bank that had repeatedly called for the FCE’s closure and, after railway supporters had organized and rehabilitated parts of the line, actually allocated millions of dollars to help finish revitalizing the FCE’s infrastructure.

### **3. Engaging Civil Society to Protect Transportation Infrastructure and Services in Sub-Saharan Africa (Chapter 4)**

Chapter 4, “Engaging Civil Society to Protect Transportation Infrastructure and Services in Sub-Saharan Africa,” directly aims to answer my research questions. It begins to fill the gap in the literature about the role of civil society in LDCs’ transport sector – particularly what role and impact TCSOs can have. It defines TCSOs to better understand their role and the characteristics that distinguish them from

other actors in the transportation sector. The case of the ADIFCE, the TCSO that worked to preserve railway service on the FCE, provides one of the few examples of civil society working on a transportation issue in an organized fashion for years at a time. This chapter discusses how they differ from other civil society actors working on behalf of transportation interests.

This chapter examines three key strategies used by ADIFCE, often in concert with other railway supporters, to protect the FCE. The first intervention was the implementation of the “Heritage Campaign” that drew upon the railway’s lamentable past – particularly the line’s construction through the use of SMOTIG – to give a common bond to the communities spread over the line’s 163 kilometers. ADIFCE furthered this outreach effort through the visible communication campaign and interaction with villagers. A second key strategy that united communities and aimed to protect local forests and the railway infrastructure finds its basis in traditional Malagasy law, which ADIFCE helped implement and enforce. ADIFCE also assisted in mobilizing local farmers to cultivate the deep-rooting plant vetiver (*Chrysopogon zizanioides*) that was used to combat erosion on the hillsides along the FCE’s right-of-way.

Efforts by civil society and ADIFCE also had unintended consequences. Their efforts proved crucial for rehabilitation work and the privatization process, but they also created a sense of unity that proved vital in protecting this transportation line’s infrastructure when political turmoil literally threatened the railway’s existence. The ADIFCE worked alongside ANP (the second TCSO) to prevent the bombing of the railway’s bridges and tunnels during the 2002 political crisis. The ADIFCE’s ability to catalyze local community support for the railway, particularly during tumultuous times, demonstrates the value that a TCSO brings to a table most frequently reserved for government and international aid actors.

#### **4. Concluding Chapter (Chapter 5)**

Following these three chapters described above, I summarize and elaborate on the findings of my research as well as policy implications in the concluding chapter.

It is clear, even without the research I conducted, that civil society plays a less visible role than in other sectors. The question is whether more noticeable participation by CSOs translates into results that serve their interests. The case of the FCE is a useful example on the possibilities and limits of how an organized civil society can impact transportation decisions that affect them.

This research could prove useful to the supporters of colonial-era railways in SSA. The condition of many of these lines is dire and millions of people still depend on them. Identifying the strengths and weaknesses of the ADIFCE in this case could provide other advocates of transportation infrastructure with useful lessons that they can apply to other communities who want to make their voices heard in transportation decisions that affect their lives. It holds lessons for all actors who participate in transportation investment decisions in LDCs and particularly when it comes to railways. Although the conclusions and recommendations speak largely to the context of colonial-era railways in SSA, many of the lessons can be applied to other regions and other types of transportation infrastructure.

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## Chapter 2

### Heritage Infrastructure Constructed, Constructing Heritage Infrastructure

“It seems to me that one of the reasons why we treasure the relics of bygone eras is that, if we did not, how could we value the future, which itself will soon pass into history?”  
(John Friedmann 2006: 7)

#### I. Introduction

Colonial powers built scores of railways across sub-Saharan Africa (SSA) to serve their strategic interests. Constructing these massive public works came at a great cost to the indigenous populations forced to build them. Yet like many colonial contradictions, these lines provided benefits to numerous local communities in their vicinity. Many of these railways continue to support local livelihood and provide other non-economic benefits, sometimes for the most vulnerable rural populations. Yet the declining state of their fixed infrastructure and rolling stock makes such public service more precarious. Railway supporters and beneficiaries, often spread over hundreds of kilometers and as many communities, could benefit from a new strategy that builds public support for the preservation and maintenance of these lines based on their past.

Researchers have often called colonial-built transportation infrastructures as inheritances (Griffiths 1995: 181; Njoh 1999: 225; Simon 1996: 49), but colonial railways’ rich histories mean many could more appropriately be called “heritages.” Economic and other less tangible benefits generated by these infrastructures may engender popular appreciation, but their worth includes significant unquantifiable aspects and thus extends beyond net present value and balance sheets. Under the *Convention Concerning the Protection of the World Cultural and Natural Heritage*, colonial railways fit the definition of a cultural heritage site, which includes “works



of man or the combined works of nature and man, and areas including archaeological sites which are of outstanding universal value from the historical, aesthetic, ethnological or anthropological point of view” (UNESCO 1972: Article 1). More than just impressive feats of labor, colonial railways’ histories endow them with a deeper sense of heritage. Yet as discussed later, “heritage”—as distinguished from “inheritance”—is as much a process as it is a definition. The lines’ histories, and efforts to recall them, can render them *heritage infrastructures* rather than lines simply inherited from colonial powers.

As demonstrated with the case of Madagascar’s Fianarantsoa-Côte Est Railway (FCE), keeping a colonial railway operational is not easy even when valued as a patrimony. The “Heritage Railway,” as the FCE is known, has struggled for decades to remain open even under normal conditions. Despite the many benefits it provides for the region and especially nearby households, degraded infrastructure, aging rolling stock, adverse weather, and rising operating expenses have pushed it to the brink of closure many times. The World Bank even attempted to make its closure a condition of further loans to the Malagasy government in the 1980s (Freudenberger 2003: 140). One would most likely have expected it to close given these pressures that had closed many of its sister railways across SSA. However, when threatened with closure from landslides caused by cyclones or from sabotage during the 2002 political crisis, supporters of the FCE used its past and shared heritage to galvanize public support for the line.

The FCE’s strong sense of heritage is inseparable from its history – particularly the forced labor program that facilitated its creation: the *Service de la Main d’Oeuvre des Travaux d’Intérêt Général* (SMOTIG). Although the colonial administration used SMOTIG to build public works projects across Madagascar, it dedicated between 50 and 75 percent of its workers in any given year to the FCE. It is also no coincidence that SMOTIG’s existence overlaps precisely with the FCE’s 10-year construction timeline. The French would most likely never have built the railway without SMOTIG (Thompson and Adloff 1965: 446). Understanding why the FCE continues

to exist requires delving into its past and particularly how SMOTIG affected Malagasy.

SMOTIG workers built a physical structure that has endured many decades of use, but they also left behind an intangible heritage. FCE supporters often invoked the memory of these workers to unite villagers behind efforts to protect and rehabilitate the railway by asserting that the railway was everyone's heritage. Descendants of SMOTIG workers have argued that to let the railway close would be disrespectful to the memory of their ancestors who reportedly suffered and sacrificed so much. The concept of "sacrifice" often surfaces in discussions about SMOTIG and the FCE. Yet workers' suffering has proved both memorable and galvanizing for subsequent generations born long after the FCE was finished.

Existing research on SMOTIG offers a mixed picture of the program. Frémigacci claims that compared to previous forms of forced labor in Madagascar, it was "milder" because it recruited only young men "who did not yet have roots," paid them relatively well and instituted protective measures that translated into lower official casualty and desertion rates (Frémigacci 2006: 180-182, 187).<sup>1</sup> Sharp asserts, however, that "among such sanctioned forms of colonial enslavement, SMOTIG emerges as the most dreadful of all, robbing local communities of many of their most productive workers" for years at a time (Sharp 2002: 217). This sentiment is reinforced by the well-documented cases of worker abuse (Sodikoff 2005). A more compelling explanation is still needed as to why SMOTIG created such a strong sense of heritage for the line.

Based on a critical review of colonial documents, secondary sources and interviews, this article aims reconcile the conflicting views of SMOTIG. This article considers the possibility that SMOTIG can simultaneously be called one of the safest yet most pernicious forms of forced labor to befall the Malagasy people. Specifically, I argue that French efforts to allay international concerns about the use of forced labor on railways by portraying SMOTIG as military service actually increased Malagasy suffering over previous forms of forced labor. Malagasy men lost their

freedom for at least two years only to be forced to live in an atmosphere of intense surveillance and discipline. The pivotal reason why SMOTIG has had such a long-lasting impact, though, has more to do with the issue of workers' deaths than how they were treated when they were alive. Namely, the absence of any references to repatriation of remains and the significant costs it would have incurred suggest that the French did not return the bodies of fallen workers to their home villages where they could be put to rest in family tombs. SMOTIG effectively made the FCE into both a symbol of workers' suffering and a makeshift tomb for those workers whose bodies were not recovered.

Although recalling the FCE's past, and SMOTIG in particular, does not alone explain the ability of the FCE to withstand storms—whether political, financial or actual weather events—it has proved to be an important factor. This paper closes with a discussion of how the concept of the FCE as a heritage has been articulated and reinforced through the actions of its supporters. Specifically, FCE supporters focused on the idea of heritage in their communications campaign, which aimed to build a sense of ownership so that the population along the line would protect it from various threats. This effort could offer lessons to other colonial-era railways in SSA.

## **II. Colonial Railways and Forced Labor in Sub-Saharan Africa**

“Development” dreams danced in the heads of colonial administrators who viewed transportation projects as essential to realizing their country's development goals. The Sarraut Plan, France's first development plan for the French empire, called transportation projects “economic tools” that would improve the material welfare of its colonies' population as they moved “little by little towards civilization” (Sarraut 1923: 310).<sup>ii</sup> Colonial governments particularly favored railways because they provided better performance, superior safety and greater control over the movement of goods than alternative transportation modes (Roques 1900: 14-15; Azevedo 1981: 3). The footprints of African railroads, which almost invariably run

from the countries' ports to the inland areas, demonstrate their faithfulness to colonial goals rather than those serving a broader public interest. Specifically, colonial powers sought to assure their own political and military control, access to natural resources and economic benefits from new markets (Hilling 1996: 77; Simon 1996: 50; Gray 1999: 87). Simon observes "the colonial infrastructural inheritance, especially rail networks, had been designed to serve the interests of political rulers thousands of kilometers away rather than the needs of the indigenous population" (Simon 1996: 49). Serving local needs, by contrast, might have involved creating actual networks that connected secondary inland cities to each other to facilitate internal trade and communication.

Building these railways was no simple feat, as they required tremendous amounts of financial, natural and human resources. Yet the costs of forced labor used to build these railways had an arguably greater effect on the indigenous populations. Every major colonial power used their authority to requisition men for railway work (ILO 1929a). Forcing the indigenous population to work on railways served colonial interests because the voluntary, paid labor necessary to construct, maintain and operate these lines in SSA was mostly not forthcoming. Wages largely failed to motivate men to volunteer because they had few material desires (Thompson and Adloff: 444; also see ILO 1929a). Sometimes the local population would eschew paid work because "the native, forced to work, sees in labour a punishment, an oppression on the part of the employer and of the State" (Lourenço Marques 1926 in ILO 1929a: 237). The lack of voluntary labor is also unsurprising given the inherently hard and dangerous nature of railway work. One International Labor Organization (ILO) report observed that "their size and the number of workers employed on [railways and road systems], besides bringing them more to public notice, has special dangers which are less evident in other cases of compulsion, and the literature on this subject is particularly unhappy reading" (ILO 1929a: 246).

Although colonial proponents often claimed forced labor did not inflict harm like slavery did, physical and psychological harm undeniably befell many native workers

who were conscripted against their will. Many of these workers suffered from depression due to forced labor's "humiliating restriction of liberty" (ibid.: 236, 247). Besides suffering from work-related injuries, corporal punishments and the humiliation of physical restraints (i.e., being roped or chained together), these laborers experienced physical problems simply from being forcibly relocated to new regions where climate, diet and infectious diseases impacted their health (ibid.: 261). The abhorrent and confined conditions of many work camps, along with the constant turnover of workers, aided the transmission of communicable illnesses such as tuberculosis, hookworms, and syphilis (ibid.: 248, 261).

Besides critics lamenting the adverse impacts on workers, they also raised concerns about the larger social and economic ills wrought by forced labor. Taking young men away for the purposes of forced labor meant that communities frequently lost a key demographic essential for local cultivation work, which in turn led to famine or caused detrimental economic consequences for the local area (ibid.: 261). Many communities also suffered from depopulation caused by men fleeing their villages in order to avoid such colonial obligations (ibid.: 234). Anthropological experts at the time even worried that forced labor led to 'deviant' behavior among workers: "the absence of their wives tends to encourage abnormal sexual habits; the cessation of tribal authority which they respect and which provides the sanctions of their code of conduct leaves them unguided amid strange circumstances; they lose their own standards without gaining new ones" (ibid.: 261).

Media reports of abuses and deaths, notably at railway worksites, had already made forced labor controversial. Criticism of forced labor practices only increased following WWI (Sharp 2002: 197). The 1926 Slavery Convention included a clause denouncing forced-labor practices because "there was no lack of evidence that forced labour might result, and had resulted, in evils analogous to some of those produced by slavery" (ILO 1929a: 2). The ILO then led the effort to pass an international convention against forced labor. Although member states expressed their support for prohibiting forced labor by private parties, the same consensus did not extend to projects with a "public purpose" (ibid.: 12). So even though the Forced

Labor Convention of 1930 stated that ratifying members would agree to “suppress the use of forced or compulsory labor in all its forms within the shortest period possible,” an exemption still existed for using it as “an exceptional measure” for “public purposes” (Article 1 of Forced Labor Convention of 1930).<sup>6</sup>

The ILO developed criteria for the Forced Labor Convention so as to judge the “necessity” of resorting to forced labor for any given public project (ILO 1929a: 258). Forced labor could be justified if the work: (1) was of direct interest to the workers’ communities; (2) was of current or imminent necessity; (3) did not have enough voluntary labor to be realized; and (4) did not place too heavy a burden upon the present population. With the exception of the third point, supporters would find many of their justifications for colonial railways feeble even then. In emphasizing this point, the ILO specifically stated that “the construction of a railway may appear to be ‘essential’ to the rapid development of a colony, but its carrying out may prove to be a bigger burden than the present population can support” (ibid.). Ultimately the colonial administration, not the ILO or those people actually called upon to forfeit their time and wellbeing to build the railways, had the responsibility of deciding whether the burden was too great.

Workers sacrificed much to build colonial railways. They experienced abuse, starvation, disease, debilitating injuries and death on a massive scale at hundreds of worksites across SSA. They lost their liberty to choose their job or where they slept. The forced-labor program SMOTIG, which the French used to build Madagascar’s FCE Railway, illustrates an attempt by the French to minimize forced labor criticism, but at an arguably greater cost to Malagasy.

### **III. Madagascar’s Little Railway and Big Labor Problem**

The French approach to developing Madagascar’s transportation system, and railways in particular, was consistent with broader colonial development patterns in

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<sup>6</sup> Last accessed on 20 October 2012: <http://www.ilo.org/ilolex/cgi-lex/convde.pl?C029>

SSA. Colonial officials in Madagascar initially favored “stand-alone” railways over roads to facilitate the island’s “external relations” given the island’s vast size as well as the unreliability and perils of contemporary road-based travel (Roques 1900: 14-16, 32). One of Madagascar’s four initial railways was the “Southern Railway” or “Betsileo Railway,” which later became known as the FCE (ibid.: 19). Instead of connecting with the populous capital Tananarive, though, the French decided to link the island’s second largest populated city Fianarantsoa directly with Madagascar’s east coast so as to “unlock” the rich agricultural area it would traverse (ibid.: 21-22).

One colonial official affirmed that “the idea of a railway from Fianarantsoa to the sea is nothing less than a fair and rational idea whose achievement must be pursued as soon as circumstances permit it” (ibid.: 22).<sup>iii</sup> However, the weak French franc, coupled with financial resources dedicated to the other Malagasy lines and France’s WWI military campaign, delayed the launch of the FCE dossier (Frémigacci 2006: 169-170). Interest in building this line actually rekindled, though, with the start of WWI when Madagascar served as a source of troops, foodstuffs and other materials for France’s war effort (Thompson and Adloff 1965: 248; Razafindralambo 1998: 5). Railway boosters argued that a southern line would prevent congestion of these supplies on the other transportation routes to the coast, thereby increasing Madagascar’s export capacity (Sarraut 1922: 506; Olivier 1931: 104). In 1924, recently appointed Governor General Marcel Olivier proposed a slate of large public works projects called the *Programme de Grands Travaux* (hereafter referred to as the Grands Travaux program), which featured the FCE as the most ambitious and expensive venture, and eventually secured financial support for it (Olivier 1931: 104; Frémigacci 2006: 170).

Like many other African railway projects, the FCE construction effort was complicated by the especially daunting task of finding a sufficiently large Malagasy workforce. The colonial administration claimed the island suffered from an “absence of labor” (Olivier 1931: 104). Their experience constructing the northern rail network revealed the difficulties in recruiting voluntary labor for railway work even with wages and recruitment bonuses significantly above the island’s prevailing rates

(Frémigacci 2006: 172). Meanwhile, colonial settlers who struggled to find local labor for their ventures after WWI had already increased the pressure on the administration to find additional Malagasy workers (Olivier 1931: 105; Heseltine 1971: 161). The administration therefore needed to find railway workers “without disrupting the agricultural and industrial companies” (Olivier 1925: 40).<sup>iv</sup> One ILO report stated that “in Madagascar, the question of the labour supply has become urgent, the postwar economic expansion in the colony having been threatened owing to the increasing difficulties experienced in recruiting workers for private and public undertakings” (ILO 1927: 70-71).

The colonial administration had previously dealt with the labor problem by forcing Malagasy to work for both public and private purposes, primarily through *prestation labor* (Thompson and Adloff 1965: 18). *Prestation labor*, otherwise known as a “labor tax” ranging from three to thirty days of service each year, did little to solve what colonial officials viewed as the inherent root of the island’s “labor problem” – namely the quality and reliability of the Malagasy worker. Some observers believed that “the acute character of the labor crisis is due to the instability of the Malagasy. Neither laws nor wages can make him keep his promises” (Manicacci 1947: 253 in Thompson and Adloff 1965: 444). French colonial administrators and settlers frequently described Malagasy as “naturally apathetic,” “unreliable,” “indolent,” or “unstable” (Gallieni 1905: 62 in Frémigacci 2006: 174; Olivier 1927c: 11; Thompson and Adloff 1965: 445). When Malagasy eschewed paid work for subsistence farming or left their jobs without notice, they attributed this to the Malagasy *mentalité indigène* or “indigenous mentality” (Thompson and Adloff 1965: 445; Sharp 2002: 206). Sharp notes that the fact that the colonial administration promulgated more labor laws in Madagascar than in any other French colony is a testament to their frustration towards the Malagasy population’s failure to work as expected (Sharp 2002: 206; cf. Thompson and Adloff 1965: 449).

While anticipating the need to use forced labor for the FCE’s construction, colonial administrators also believed that the Grands Travaux program was an



opportunity to reform the Malagasy mentality that so often seemed to mire France's *mission civilisatrice* or "civilizing mission." Namely, changing the mindset of the colonized population could advance the *mise en valeur* [i.e., development] of Madagascar (Sodikoff 2005: 418). Olivier argues in *France and the Colonial Problem*, an essay describing France's civilizing mission, "colonisation is a guardianship. It is an education. Moral and spiritual worth, and the educative capacity of the Mother Country colonizing should be the first consideration" (Olivier 1938: 36). Madagascar's first governor general, Joseph Gallieni, called railways a "civilizer" (Frémigacci 2006: 164). Yet he probably never envisaged how Olivier would use the colony's ability to build a railroad as the attempt to transform the Malagasy into a compliant labor force necessary for their overarching project of modernity.

#### **IV. SMOTIG: Teaching "Soldiers" to Shovel, Not Shoot**

Although the 'labor problem' had changed little since the creation of the colony, attitudes towards labor use shifted substantially by the time the French administration moved in earnest to build the FCE. The increasingly sharp criticism of forced labor—both within and outside of France—coincided almost exactly with the planning of the FCE. This attention to forced labor practices clearly raised the French colonial administration's self-awareness of its own labor-extracting practices and especially how outsiders judged them. So in addition to the ongoing challenge of finding enough workers, colonial administrators now had to contend with a potential public relations problem. Although vocal criticism would not halt French plans to use forced labor on the FCE, it changed how they portrayed the use of indigenous labor on this and other Grands Travaux projects. As described below, the French sought to convince outsiders, and arguably even themselves, that SMOTIG was more akin to military service than manual labor.

Olivier clearly grasped that shifting views of forced labor threatened to stymie their ambitious public works program. Consequently, he proposed the creation of SMOTIG in a law passed in 1926. This allowed the colonial administration to

requisition Malagasy men between 18 and 27 who were liable to serve three years in the French military but who were never actually drafted (Thompson and Adloff 1965: 446).<sup>7</sup> Of the roughly 38,000 Malagasy men eligible for French military service in 1927, for example, the French armed forces only needed 4,500 men (Olivier 1927a: 1). Colonial officials also reasoned that thousands of men deemed inapt for military service because of “minor” health deficiencies (e.g., bad teeth, poor eyesight, hearing problems, syphilis, etc.) were still sufficiently healthy to toil at construction sites (Trautmann 1928; Olivier 1931: 110-111). Olivier therefore relaxed the physical standards for Malagasy eligible for SMOTIG service so that men who were adequate *only* for “service within the colony” came to form the bulk of the workforce (Olivier 1927a: 3). Instead of calling them soldiers, though, Olivier issued an official decree that labeled these men as “pioneers” (Olivier 1928b: 2).

The French still clearly meant to portray SMOTIG as mandatory military service. Rather than accept the label of forced labor subsequently raised by ILO critics upon SMOTIG’s creation, Olivier sought to reframe it as “obligatory labor” just like military service (Olivier 1931: 103). Debates on forced labor largely recognized military service as a legitimate duty that the colonial powers could impose on the indigenous population in the name of the “public interest” (Benson 1931: 146). Olivier claimed that SMOTIG “maintained the character of a military unit in all its cogs” (ibid.: 114).<sup>v</sup> The colonial administration reportedly equipped men with military-style uniforms.<sup>8</sup> They also organized pioneers into units and assigned them ranks as part of a strict chain of command (SMOTIG 1927). Pioneers lived a highly regimented life under the watchful eye of various levels of supervision. These men even received rudimentary military training and performed drills daily (ibid: 46). Olivier further justified this branding by claiming “a colony would stay in a ‘state of war’ so long as it suffered from mediocre tools, and a small population and their

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<sup>7</sup> It is questionable that these age limits were respected given the difficulty that the French had in determining the true age of Malagasy (Office Central du Travail 1935).

<sup>8</sup> The standards of these uniforms differed over time and location. However, pioneers worked primarily in their traditional attire and only wore uniforms in their “free” time when not laboring (SMOTIG 1927: 42).

insufficient adaptation to the conditions of civilized life that keep them at the mercy of a financial crash or a cyclone, a stock market hit or a drought” (Olivier 1931: 112).<sup>vi</sup>

Olivier also conjured an argument that this “military” experience would provide Malagasy men with valuable training. The ILO’s Temporary Slavery Commission at the time reportedly accepted educational and social welfare motives as potentially valid reasons to force native populations to work, namely by imbuing indigenous populations with agricultural or trade skills (ILO 1929a: 13). Colonial administrators affirmed that once pioneers had completed their service, they could then apply their skills voluntarily as mechanics, carpenters, woodworkers or drivers (Chardon 1930a: 24). A member of France’s Colonial Committee claimed SMOTIG was “in reality merely a local system of training engineers, the nucleus of which consisted of professional soldiers and which gave physical and occupational training under rules of military discipline, thus forming a nursery of skilled workers” (ILO 1929c: 474).

Colonial administrators thought that making Malagasy work for wages would teach them to be loyal capitalist subjects (Heseltine 1971: 160-162 in Sharp 2003: 83). Olivier argued that it was not enough to be conscientious regarding these workers’ physical disposition; instead SMOTIG “must still be concerned with the moral evolution of individuals and strive to inculcate a taste for work that they so often miss” (Olivier 1927c: 2).<sup>vii</sup> Olivier wrote that the former military officers who formed the core of SMOTIG’s supervisory structure had “the aptitude to shape the men and know how to operate the organization” (ibid.: 6).<sup>viii</sup> By using SMOTIG to change these Malagasy men’s work ethic so that they would presumably choose to work, colonial administrators hoped to render moot the increasingly vocal criticisms of forced labor. They also believed that military-style instruction would instill in SMOTIG pioneers “respect for their superiors and obedience to their orders” (SMOTIG 1927: 45)<sup>ix</sup> – a trait that would transfer to other work situations. In one of the FCE’s annual reports, the public works director proclaimed, “the

natives, who could not work because no one had ever taught them, are now broken by the discipline at the work sites...” (Forgeot 1931: 3).<sup>x</sup>

## V. A Labor Force Stabilized or Stabled?

The military-style work camps played a defining role in SMOTIG – one that left a lasting mark in popular memory long after the physical structures disappeared. True to SMOTIG’s military pretense, these camps’ physical setting consisted of neatly arranged 16 square-meter cabins made from local materials that each housed four single men or two households (Trautmann 1928: 14). Pioneers had shared kitchens, latrines as well as a foyer in which to recreate or receive lessons (SMOTIG 1927). The FCE had the largest number of work camps of all large public works projects (22 out of 45 in 1930), each of which could accommodate at least 500 men and their families (SMOTIG 1927: 9; Boudry 1931: 80-81).



**Figure 3 SMOTIG camp at Tolongoina (June 1930)**



**Figure 4 SMOTIG camp barracks at Tolongoina (June 1930)**

These guarded work camps were doubtlessly difficult places to live. Instead of these men doing no more than 30 days of prestation work near their home each year, pioneers had to live between two to three years in these camps under the close supervision of colonial agents.<sup>9</sup> Malagasy detested SMOTIG’s “educational” component that emphasized surveillance, discipline and punishment so as to fashion “indolent” Malagasy into a stable source of labor (Sharp 2003: 80). If supervisors judged workers to be disobedient, negligent or lazy, pioneers could officially be punished with increasingly severe “disciplinary sanctions” of pay deductions, confinement to barracks, camp chores, or prison (SMOTIG 1927: 40).<sup>10</sup>

Vacillating between his hope to portray these camps as humane yet still military in nature, Olivier stated that the work camps were neither “camps for vacationing students nor camps for convicts” (Olivier 1931: 119).<sup>xi</sup> Perhaps best illuminating what the French intended, though, Minister of Colonies Léon Perrier referred to SMOTIG work camps as *camps de concentration* or “concentration camps” (Perrier

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<sup>9</sup> The colonial administration later reduced pioneer’s time of service to two years. One SMOTIG critic said that if SMOTIG had applied to all occupants of Madagascar and not just Malagasy, “one could be certain that, from the time when the settlers were made subject to it, they would very soon have the period of service reduced from three years to three months, if not to three days” (ILO 1929b: 8-9).

<sup>10</sup> This did not stop corporal punishment and psychological abuse from taking place (see Sodikoff 2005: 419).

1927: 4). Unlike the European death camps of WWII, though, the French clearly tried to safeguard pioneers' wellbeing. SMOTIG administrators constant scrutiny of the workers, lodgings, shared kitchens and latrines helped maintain sanitary conditions in the camps (SMOTIG 1930b). Still, it is indisputable that this type of concentration camp shared a defining trait with its infamous cousins: to confine people under close supervision for an exploitive purpose.<sup>11</sup> Moreover, these concentration camps' occupants consisted of the indigenous population who did not have any recourse to oppose their internment.

The colony had a strong practical interest in retaining Malagasy men this way as opposed to forcing them to work as prestation laborers. Keeping the same men for longer periods allowed them to master the same task and minimized the time wasted getting organized (SMOTIG 1927: 45). It also allowed SMOTIG supervisors who kept pioneers under close watch to know each worker's capabilities, thereby ensuring a consistent output. This was essential to the FCE because the colonial administration guaranteed the labor output to the private contractors who built it. According the head of SMOTIG, "with ordinary or prestation laborers, it is almost impossible to maintain a rational organization at the worksites because the workers vary daily in significant ways...The reliability of the SMOTIG workers and the discipline of the worksites presents the greatest advantages for the execution of the work" (Olivier 1931: 122).<sup>xii</sup>

Geographical constraints also factored into the creation of SMOTIG and its placement of workers in these camps. Perrier affirmed, "it follows that the recruitment of the [pioneers] will focus on areas where we do not work, at least for the moment" (Perrier 1927: 11-12).<sup>xiii</sup> Such recruitment also served the colonial goal of putting the "idle" Malagasy men from the island's southern and western areas to work (Perrier 1926: 1). Olivier also argued prestation labor placed a greater burden on poorer people living next to public works, namely roads and railways (Olivier

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<sup>11</sup> <http://www.britannica.com/EBchecked/topic/130884/concentration-camp> last accessed 4/11/12.

1931: 106-107). The equity argument was plainly misleading because the French could not have relied solely on villagers living next to large public works projects—especially the FCE—due to labor scarcity in these plantation-rich areas. Moreover, the colonial administration had already limited prestation labor to within six kilometers of a Malagasy man’s home (ILO 1929a: 172).

Despite some government documents claiming that recruitment efforts were focused on nearby villages (SMOTIG (undated): 3; Sodikoff 2005: 423), the need for labor for projects like the FCE was too great to respect this commitment. The French would not have been able to find the 9,300 workers required annually at its peak to build just the FCE (Chardon 1931: 56-58). Statistics from 1930 show 6,720 men out of 15,128 SMOTIG workers were assigned to the FCE camps (Boudry 1931: 81).<sup>12</sup> However, only 3,035 SMOTIG workers came from regions next to the FCE’s route (ibid.: 80-81).<sup>13</sup>

The French clearly would not have opted for a resettlement approach unless they viewed it as absolutely necessary. It would not have been cheap to support workers and their families coming from the far south as the 400 km journey to the FCE worksites could take a month or longer (Chardon 1930b: 1). The administration also had to provide for the care of these workers and their families at the work camps whereas under prestation labor such costs remained the responsibility of requisitioned Malagasy. It is no surprise that just a few years after its initiation, the French looked to secure cheaper voluntary labor. As Frémigacci rightly notes, pioneers were a very expensive form of labor and this ultimately led to SMOTIG’s demise (Frémigacci 2006: 179).

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<sup>12</sup> I selected this year because it had comparable information about where recruited workers came from. These 22 sections were responsible for building the Port of Manakara and the FCE railway.

<sup>13</sup> The regions were Fianarantsoa and Fort-Dauphin, which included the province of Farafangana adjacent to the FCE (Boudry 1931: 80). This is a conservative assumption because the city of Fort-Dauphin is almost 350 kilometers away from the FCE.

## **VI. Abuses, Lost Bodies but no Desertions**

When crafting SMOTIG, an optimistic Olivier believed it would prevent abuse and improve worker safety (Olivier 1927c: 1). While the welfare of pioneers working on the FCE received more attention than workers on earlier railway projects, this does not mean Malagasy appreciated the changes. Colonial administrators did not consider the possibility that relocating and confining workers under supervision for years at a time, while preventing some deaths, would be more unbearable than earlier forms of forced labor. Ironically, SMOTIG can be argued to have generated greater harm that fomented a deeper, longer-lasting resentment than if the French had continued relying on nearby villagers for shorter-term forced labor.

Forcibly removing native laborers from their villages had started to be criticized just as SMOTIG activities increased (ILO 1929a: 260-261). Relocating workers in Madagascar had particular significance, though. The French had long recognized that Malagasy of all ethnicities viewed being close to their “foyer” or communities as very important – particularly for maintaining their family tombs and holding ceremonies honoring their ancestors (Chardon 1932: 34). Roques wrote that the “Hova have a strong attachment to their tombs; the families will put all their resources to their construction”<sup>xiv</sup> (Roques 1900: 36).<sup>14</sup> Other French observers recognized tombs, funerals and other ceremonies as a key reason why workers deserted their paid employment (Thompson and Adloff 1965: 324; Chardon 1932: 34). The likelihood of causing distress and malaise by separating Malagasy men from their villages and family tombs for years at a time was therefore not lost on colonial officials.

The French constantly worried about SMOTIG’s impact on the psychological wellbeing of pioneers because they believed this would affect their physical state (Olivier 1927c: 9). Olivier cautioned, “of course the failure [to maintain pioneers’

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<sup>14</sup> The French classified “Hova” as an ethnic group occupying the high plateau and that included both the Merina and the Betsileo.



morale] would be less apparent than the failure of the sanitation program, but the very fact that its results reflect less clearly encourages us to exercise greater vigilance” (ibid.).<sup>xv</sup> SMOTIG organized workers into units based primarily on their ethnicity and geographical origin in the hope that it would reduce depression and potential suicides (SMOTIG (undated): 3).

Beside the obvious reasons for such malaise—separating these young men from their families and confining them to years of hard labor—Olivier also feared that “the natives are tempted to regard individuals employed on large public works as slaves” because the Merina ethnicity, who once ruled Madagascar, used the slave class for this purpose (Olivier 1927c: 3).<sup>xvi</sup> Olivier hoped that SMOTIG’s military appearance would avoid this grave social stigma given to those who labored on public works (ibid.).<sup>15</sup> Few Malagasy, though, believed pioneers were really soldiers. Descendants of pioneers noted that workers called themselves *miaramilam-potaka*, or “mud soldiers,” because they were armed not with a rifle but with a spade to move soil (Elders focus group, Ambila, 12 Sep 2009; cf. Razafindralambo 1998: 10). Critics at the ILO and even in the French parliament accused the colony of practicing slavery (Sharp 2002: 200). Although informants also likened SMOTIG service to slavery, when pressed, they acknowledged that pioneers who left SMOTIG were reintegrated into local life and did not acquire a slave-class status (SMOTIG sons focus group, Ambila, 12 Sep 2009).

Colonial records show that SMOTIG’s professional pretense did not halt worker mistreatment. When reports that commanders and supervisors were abusing workers reached Olivier, he sent out a notice that all allegations would be thoroughly investigated (Olivier 1928a: 2). Olivier asserted that investigating and punishing any guilty party was “necessary to not let it develop in the minds of the natives that the workers are often, if not always, sacrificed to the interests of the agents in charge of overseeing them” (ibid.).<sup>xvii</sup> Unfortunately, abuse of pioneers

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<sup>15</sup> For a discussion on the social and economic implications of being identified as being from a slave class, see Kottak 1980: 103-105 and Evers 2002).

persisted. In one striking case, the FCE's Vohimasina camp commander was relieved of duty because he "used to amuse himself by shooting his gun at night above the tunnel where pioneers were working, thus making them fear the explosions that would bury them at the back of the tunnel" (Coursin 1930: 61 in Sodikoff 2005: 419).

Colonial officials could have reasonably claimed pioneers' risk of death along the FCE worksites was greatly reduced compared to other colonial railway projects. After their journeys to one of SMOTIG's large "assembling camps," pioneers received vaccinations and reportedly spent roughly one to two months resting and training before transferring to the work camps (SMOTIG 1927: 46; SMOTIG 1930b: 23). Camp commanders instituted cleaning protocols to reduce disease-carrying pests such as rats, fleas and ticks (SMOTIG (undated): 1). Water pumps and natural springs provided access to clean water that likely reduced the likelihood of contracting debilitating diseases such as schistosomiasis and other waterborne maladies (Trautmann 1927: 14). When necessary, the French even added bleach to the water to make it potable (SMOTIG 1927: 56). Moreover, camp occupants reportedly received the malaria prophylactic quinine at the end of each day and some pioneers even received mosquito nets (SMOTIG 1927: 56; Trautmann 1928: 21; SMOTIG 1929: 34).<sup>16</sup>

Nevertheless, building infrastructure like a railway through rugged terrain and dense forest proved perilous to pioneers' welfare. Colonial reports blame landslides, falling trees, collapsed wood structures, mine explosions and asphyxiation in the tunnels as official causes of death for SMOTIG workers (Chardon 1932: 48; SMOTIG 1930b: 40; Sodikoff 2005: 419). Explosions of rock and wood in their excavation work also injured and maimed many more workers (Sodikoff 2005: 419). The work on the FCE was arguably the most dangerous. In just one year, more workers died building the FCE than all of the other large public works projects together (SMOTIG

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<sup>16</sup> The French likely gave quinine at the end of the day because quinine can have sickening side-effects and this would have hampered pioneers' ability to work.

1930b: 41). This is understandable given the project's ambitious effort to build 56 tunnels extending over five kilometers underground as well as 40 bridges (Public Works 1932: 6).

Frémigacci rightly contends, "the FCE was no Congo-Ocean Railway," a project notable for a high worker mortality rate (Frémigacci 2006: 181). The FCE's mortality rate, though, still seems improbably low even given its protective measures, particularly when compared to the conservative death rate of 12% for France's Congo-Ocean Railway being built around the same time (Azevedo 1981: 12).<sup>17</sup> Colonial documents, when available, report a consistently low casualty rate for pioneers compared to other colonial projects using forced labor. In its initial years, SMOTIG's mortality rates remained below one percent (SMOTIG 1929: 52; SMOTIG 1930b: 8, 51). The mortality rate reported in 1930 was similar with exactly 75 men perishing out of precisely 10,000 workers (SMOTIG 1930a: 8).<sup>18</sup> By the end of 1934, though, the colonial administration reported that just above two percent of workers had perished (SMOTIG 1935: 10). Over roughly 10 years, the death toll could have easily climbed above 1,000 if such rates held steady.

Moreover, the collective memory of the Malagasy living along the FCE suggests thousands of workers perished from tunnel collapses, disease and starvation (Wiersema et al. 2001: 27). Informants claimed that many men, ranging from as few as 36 to over 1,000, died in a single major tunnel collapse at the kilometer-long Ankarampotsy Tunnel (Elders focus group, Ranomena, 30 Aug 2009; Elders focus group, Sahasinaka, 16 Sep 2009; Elders focus group, Tolongoina, 22 Sep 2009). Although an article in 1931 by a newspaper critical of the colonial regime claimed that 1,200 men died in one tunnel accident (Frémigacci 2006: 181), this is almost certainly impossible because this many men would not have been assigned to one worksite and would not have even fit in the tunnel at the same time. Unfortunately, the colonial archives contains no annual SMOTIG report for the years 1931 to 1933,

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<sup>17</sup> The Congo-Ocean might have been longer, but it required much less tunnel work.

<sup>18</sup> This is an astoundingly similar number to the figure from 1929 when exactly 75 men out of 10,216 workers also died.

the years tunneling activity peaked, to confirm or deny the events at this tunnel.<sup>19</sup> Although no written reports mention a tunnel collapse, a photo's caption in the 1934 Public Works Report indicates that the French abandoned an entrance for a tunnel entrance near the Ankarampotsy Tunnel (Public Works 1934). This is consistent with informants' reports that the French chose a new entrance after a major collapse in this area (Elders focus group, Ranomena, 30 Aug 2009; SSI with Informant 20, Sahasinaka, 16 Sep 2009; Elders focus group, Tolongoina, 22 Sep 2009).

An oft-repeated reference in the literature states that someone at the 1928 ILO convention claimed SMOTIG "had been responsible for a million 'victims' in Madagascar" (Priestley 1938: 329-330; Kent 1962: 77; Thompson and Adloff 1965: 446; Sodikoff 2005: 433, fn 63). The only instance closely resembling this claim, though, appears in Olivier's own memoir when he refutes an accusation "printed tactlessly by a large foreign newspaper that SMOTIG was responsible for many thousands of victims in 1928" (Olivier 1931: 103).<sup>xviii</sup> Olivier goes on to show how ridiculous even that unattributed claim is by offering the mortality statistics noted above (ibid.: 119).<sup>20</sup> Whether or not Olivier built a straw man to discredit critics as hysterical and thereby defend SMOTIG's relatively paltry official death rates, it is clearly impossible that Madagascar had a million casualties with its 1928 population.

The fact that the colonial administration took steps to strictly control SMOTIG's image to outside observers does provide grounds to be skeptical of SMOTIG's official casualty rates. Olivier admitted in a speech to the Marseilles Chamber of Commerce that it was not easy to create SMOTIG and "therefore I shall say little about it, for if I spoke much I would endanger the whole organization and it would be necessary to

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<sup>19</sup> A public works report dated 15 December 1931 states that work on the tunnel had not yet begun (Public Works 1931: 5). A second report dated 15 September 1932 reports that work had started on the Manakara-side of the tunnel (Public Works 1932: 7). The tunnel collapse reportedly happened on the other side that faces Fianarantsoa.

<sup>20</sup> It appears that Priestly incorrectly translated *milliers* into "millions" rather than "thousands" and that other researchers cited Priestly's translation or the authors that subsequently cited him.

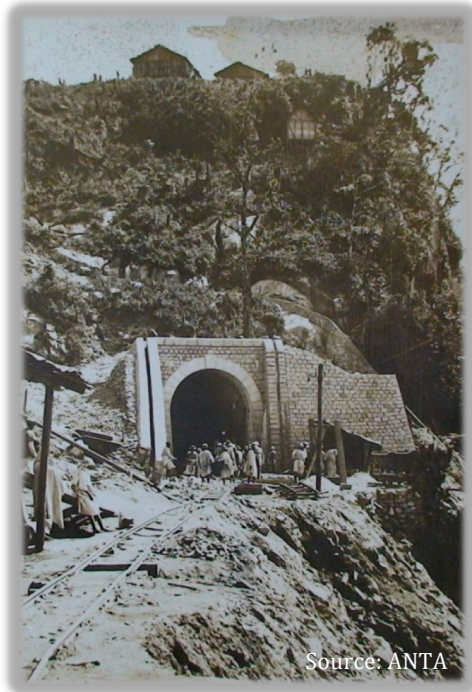
give up the hope of doing anything at all in Madagascar" (ILO 1929b: 8).<sup>21</sup> The colonial administration prohibited photography at worksites or during working hours without the express permission of the head of SMOTIG (SMOTIG 1927: 50). As compared to the close-up photos taken during the northern railway network's construction two decades earlier, photos of pioneers are rare, especially with European supervisors, and hardly close enough to see any real exertion (see Figures 3, 4). It is unsurprising that the government's Political Affairs Services became involved in the development of SMOTIG instructions for reporting work-related accidents given that critics actively sought this information (Chardon 1931: 21). In addition, the head of SMOTIG's medical service circulated a notice to worksite supervisors that praised SMOTIG's initiative while simultaneously requesting an accurate accounting of daily camp life (Trautmann 1928: 22). He reminded them that the ILO and League of Nations wanted to review reports on SMOTIG's work camps.



**Figure 5 Northern Railway laborers (1903)**

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<sup>21</sup> While these efforts to hide the reality of SMOTIG did not prevent criticism, it probably stemmed it and clearly shows that historical records about SMOTIG are biased in favor of the program.



**Figure 6 FCE laborers at tunnel (August 1933)**

Perhaps more important to Malagasy than an accurate body count, though, is how the French handled pioneers' remains. Colonial archives contain few details about what happened to Malagasy men who died in service to the French empire (Sharp 2002: 186). We can presume, though, that the French did not repatriate all of the bodies of workers who died along the FCE back to their customary place of residence. Returning workers' bodies to their villages hundreds of kilometers away would have taken significant resources. It would also have increased the chance of spreading disease in a mostly tropical climate.<sup>22</sup> Although a 16-square-meter morgue was added to the Sahasinaka assembly camp in 1930, it does not appear that any of the FCE's other work camps had the ability to prepare dead pioneers' bodies for repatriation (Coursin 1931: 44). The morgue's existence also does not explain what happened to the bodies in Sahasinaka or whether it was intended for European employees or pioneers. Most significantly, the SMOTIG guidelines never mention the process for the handling or repatriation of bodies, even though it

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<sup>22</sup> The French discuss the careful and respectful handling of Europeans' bodies who were killed during the 1947 rebellion. They were placed in iron coffins with disinfectant (Dugas 1947).

stipulates in detail how to transmit the deceased's wages and their personal effects to their next of kin (SMOTIG 1927: 86).

Interviews with villagers living along the FCE reinforce the argument that the French did not return deceased pioneers' bodies back to their home regions. Descendants of pioneers claimed that the French would not permit Malagasy to exhume the bodies of some dead workers for repatriation so that they could have traditional burials (Elders focus group, Ambohimalaza, 06 Sep 2009; SMOTIG Sons focus group, Ambila, 12 Sep 2009; Elders focus group, Tolongoina, 22 Sep 2009). Informants in one village claimed that fellow workers would sometimes return at night to "steal the bodies" to send back to the families of those killed in work accidents (SMOTIG Sons focus group, Ambila, 12 Sep 2009). Informants from two different villages along the FCE stated that when pioneers' family members came looking for their missing relatives while the camps were still operational, the French would tell them that these workers had been "transferred" to another camp, "deported" or that they were never assigned to that work camp in the first place (Elders focus group, Ranomena, 30 Aug 2009; Elders focus group, Ambohimalaza, 06 Sep 2009). These responses became euphemisms for workers dying because these men never returned home.<sup>23</sup> Relatives who came looking for missing relatives during the FCE's construction sometimes suffered beatings at the hands of SMOTIG supervisors carrying riding crops (Elders focus group, Tolongoina, 22 Sep 2009). Workers' families therefore sometimes came after Madagascar gained independence

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<sup>23</sup> Private companies and SMOTIG officers overseeing the workers arguably had motives to avoid reporting deaths, even to the head of SMOTIG. If a work-related accident killed a pioneer, the company would have had to compensate the worker's next of kin (SMOTIG 1927: 90). It would have also reflected poorly upon camp commander's leadership. Olivier stated that avoiding work-related accidents would be beneficial "not only for labor recruitment but also from a political perspective" (Olivier 1927b: 1). It is conceivable, therefore, that even if Olivier and his superiors sought an honest accounting, their subordinates and contractors may have sought ways to circumvent the reporting of deaths.

to find the bodies of their relatives (Elders focus group, Ambohimalaza, 06 Sep 2009).<sup>24</sup>

It was a real possibility that bodies of Malagasy who died in service outside or even within the colony would not be repatriated. The bodies of conscripted Malagasy men who died in the boats en route to France during WWI were reportedly thrown overboard (Sharp 2002: 184). One young Malagasy man emphasized that the French ‘just threw away the bodies of the dead [Malagasy] like they were garbage. They are out there, but they are lost. Unclaimed. Forever.’ (ibid.: 185). Although the French may have granted pioneers a more respectful burial near the place where they died, it is unlikely the French would have gone to great lengths to repatriate dead workers so that they would not become “lost ancestors.”<sup>25</sup> If we are to judge SMOTIG by values that Malagasy hold as vitally important, namely being able to remain close to their communities and ensuring dead workers would be returned for proper burial, then SMOTIG truly does deserve its horrible reputation.

Failing to return dead workers to their villages for interment in the family tombs perhaps explains why SMOTIG stands out so strongly and negatively in the minds of Malagasy even today. All Malagasy ethnic groups place an especially strong emphasis on the proper handling of ancestors’ remains. Sharp notes,

In Madagascar, the image of the lost bodies of ancestors is a terrifying one, for the dead must be placed carefully and lovingly in tombs if they are to be remembered as ancestors (OM: razana; SAK: razaña). If displaced they become *lolo*, joining instead an obscure category of unnamed, lonely, and vindictive dead...All Malagasy place great emphasis on the elaborate rituals surrounding the care for and placement of corpses (Sharp 2002: 185).

Bloch also notes that Merina experience ‘terror’ at the thought of being buried alone (Bloch 1971: 162 in Kottak 1980: 228). Even today, Malagasy villagers experience

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<sup>24</sup> Some families had the fortune of meeting a former pioneer or nearby villager who knew where to find their relative’s body, while others were not so fortunate (SMOTIG sons focus group, Ambila, 12 Sep 2009).

<sup>25</sup> This is key for tunnel collapses and landslides that buried workers.



anxiety about the possibility of falling ill and dying far from their homes and family tombs (Sharp 1993: 61; see also Keenan 1974).

Malagasy men facing such difficult, dangerous work that could result in their death without a proper burial would certainly have an understandable impulse to run away. Sharp states that SMOTIG kept pioneers in guarded camps to prevent desertion, which was a chronic problem (Sharp 2002: 199). The ILO reported that forced laborers in colonies were sometimes chained to prevent their absconding, or kept under armed guard and shot if they attempted to run away (ILO 1929a: 261). Some informants claimed that a few villagers ran away to avoid serving, but that most remained behind and suffered from abuse or the hard work of building the railway (SMOTIG sons focus group, Ambila, 12 Sep 2009). The annual SMOTIG reports, however, do not mention desertions at all. This is a curious omission given the colonial administration's obsession with pioneers' morale and the likelihood that even a handful of men out of tens of thousands would have decided to leave before their release date. It is conceivable that the colonial administration recognized that desertions would have contradicted their claims that pioneers were happy and adjusting well to life in the camps.

French attempts to ameliorate the dangers of forced labor, or at least conceal them, actually made the SMOTIG experience both more intolerable and more memorable. The preceding description of SMOTIG highlights many of the most disdainful and well-known aspects, but they surely do not capture the detailed stories told by pioneers to their descendants. Still, while Malagasy have viewed SMOTIG with contempt, they have also recognized how subsequent generations have benefitted from the fruits of its labor. This sentiment is specifically expressed for the FCE and the ancestors who built it (Elders focus group, Sahasinaka, 15 Sep 2009). As one *Mpanjaka* stated, "SMOTIG was very hard, but it left a great benefit for the Malagasy" (Elders focus group, Ambila, 12 Sep 2009).<sup>26</sup>

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<sup>26</sup> *Mpanjaka* is a Malagasy traditional leader or king.

## VII. Constructing Heritage Infrastructure and Ownership

Appreciation of the FCE is tied both to its colonial history as well as to activities in its more recent past. The FCE most likely qualifies as a UNESCO heritage site given its remarkable physical character as well as the significant historical and social consequences associated with it. As Simon and Ashley have proposed, though, “reduced to its simplest form, heritage refers to the contemporary activities through which the past comes to matter in the present...Within such activities, judgments are made as to which particular aspects of the past are worthy of preservation and are of potential significance for social memory” (Simon and Ashley 2010: 247). Conveying the heritage value of the FCE by drawing on its colonial past has proved more essential for keeping the trains running than if supporters had just pursued an international heritage designation.

The contemporary activities, which eventually led to the local christening of the FCE as the Heritage Railway, started when actors aimed to rehabilitate and privatize the line. By the 1990s, the unreliability of the already dilapidated FCE led to declining revenue that hindered even basic maintenance. The FCE’s director requested assistance from the USAID-funded Commercial Agricultural Promotion (CAP) agribusiness development project, which had a roadway infrastructure rehabilitation program. CAP’s regional director recognized that the FCE served as a lifeline transportation link for rural farmers sending their agricultural goods to regional markets and agreed to help improve the railway’s operations and infrastructure (SSI with H Schar, Phone interview, Aug 2009). The hope was to rehabilitate the line enough to attract private investors in an effort to concession the FCE.<sup>27</sup>

Yet despite some key investments, farmers practicing *tavy* (slash-and-burn agriculture) next to the right-of-way were inadvertently causing landslides and

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<sup>27</sup> Privatization was viewed as the only way to save the railway for a variety of reasons, not least of which was the insistence by the World Bank that this occur before they spend millions of dollars to rehabilitate the infrastructure. There was a healthy amount of skepticism that privatization would be beneficial for the FCE’s users and beneficiaries, particularly following the experience of privatizing the northern railway network.

washouts during the rainy season. These events cut the line for weeks or even months at a time, which made it more likely other farmers would shift from sustainable tree-based cash crops to subsistence crops grown from the ashes of *tavy*.<sup>28</sup> FCE supporters—including FCE staff, public officials, foreign aid workers, and members of Malagasy civil society—recognized that any effort to rehabilitate the line would have to find compelling motivations for farmers to halt the effective, but damaging practice of *tavy*.

Railway supporters believed that strengthening people’s sense of ownership over the line would make it more likely that they would protect it for themselves and future generations. When FCE rehabilitation project (FCER) staff initiated a participatory research process with communities along the railway, their Malagasy and expatriate staff realized that heritage was a key motivation for rural people to protect the railway because it conferred a sense of ownership. According to a key FCER staff member, one village’s mayor made the observation during a meeting that the FCE was their heritage because their ancestors built it (SSI with Informant 26, Fianarantsoa, 10 Oct 2009). Both project staff and villagers stated that the sentiment had already existed along the line before FCER helped improve it for a formal public relations effort dubbed the “Heritage Campaign” (SSIs with Informants 7 and 8, Fianarantsoa, 13 Jul 2008; SSI with Informant 23, Fianarantsoa, 25 Sep 2009; SSI with Informant 26, Fianarantsoa, 10 Oct 2009; Elders focus group, Ranomena, 30 Aug 2009; SMOTIG sons focus group, Ambila, 12 Sep 2009). FCER director Karen Freudenberger noted, “we did not create that ownership, but we identified that it existed, figured out how to tap into the amorphous, disparate sentiment that was floating around out there, and then packaged it in a way that made it a positive ‘usable’ force in the community” (Correspondence with Karen Freudenberger, 28 Jul 2009).

The campaign aimed to strengthen solidarity and ownership by reminding Malagasy living along the line about the sacrifice of the ancestors forced to build the

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<sup>28</sup> CAP’s successor projects recognized the FCE as key to protecting the forest corridor it traversed.

FCE formed the crux of the Heritage Campaign. Weisema et al. notes that the FCE is a “regional cultural heritage” in part due to the large number of lives that were lost constructing it (Weisema et al. 2001: 26).<sup>29</sup> Pioneers’ “sacrifice” and their suffering dominate discussions about the FCE’s construction, but such recognition transcends mere historical information for today’s Malagasy. Ancestors in Malagasy culture are viewed as always ever-present (Dahl 1999).<sup>30</sup> Freudenberger noted, “what villagers told us during the [participatory research process] was in so many cases that their ancestors had died building the railway and that to let the railway die would be sacrilegious to the memory of those who had died in its construction” (Correspondence with Karen Freudenberger, 28 Jul 2009).

The actors leading the rehabilitation effort developed the slogan, *Lovantsika ny lalamby ka arovy* (“The train is our heritage so save it”), to rally the support of villagers living along the railway.<sup>31</sup> Variations of the slogan were used on signs next to FCE-adjacent hillsides reinforced with the deep-rooted vetiver plant (Figure 6). The civil society organization dedicated to protecting the railway, the Association des Détenteurs d’Intérêts de la FCE (ADIFCE), adopted this slogan and used it on its official letterhead and newsletters. ADIFCE members and FCER staff began using this catchphrase in their communications campaign to unite the beneficiaries of the train service behind the rehabilitation effort (Rarivony 2002: 25). This message was carried in various mediums. FCER took a train down the line and had a theatrical group perform a puppet show at each station that explained why “the FCE is ours” (Freudenberger 2000: 7). FCER staff even hired the well-known band ZMG to write and perform the song: *Lovantsika ny lalamby* (“the Railway is our Heritage”) that became a hit on Malagasy radio.

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<sup>29</sup> The appeal of the FCE is arguably greater than regional because of its scenic vistas and the fact that SMOTIG workers came from across Madagascar to build it.

<sup>30</sup> Also see Chapter 7 in Kottak 1980 for a discussion about the enduring role afforded to deceased ancestors in the Betsileo culture, which is one of the three principal ethnicities along the FCE.

<sup>31</sup> Another variation of the slogan was *Harovy ny Lalamby fa Lovantsika* (“Save the Train because it’s our Heritage”) and was used in the communications campaign to unite the beneficiaries of the train service behind the rehabilitation effort (Rarivony 2002: 25). In Malagasy, there is no difference between “inheritance” and “heritage” for the word *Lovantsika*.



Figure 7 Farmer's sign with "Heritage Slogan"

The broad appeal of the slogan, and the abstention of specifying from whom it is a heritage, arguably makes it more effective. Some Malagasy believed that the FCE was a heritage the French who ordered it built, while others said it was from the pioneers who actually built it. Many thought it was a heritage from both. As the son of one pioneer said, "[The FCE] is a heritage from both the *vazaha* (Europeans) who enslaved their ancestors and the ancestors who did the work. It is not right to blame the *vazaha* because something sweet was left after the *vazaha* were gone" (SMOTIG sons focus group, Ambila, 12 Sep 2009). The effort to frame the heritage in a broad, positive manner makes it more universally appealing. The slogan is still recalled today when people are asked about the railway rehabilitation effort and in response to questions about why the FCE needs to be protected.

FCE supporters also drew upon and reinforced the idea that the FCE was a heritage in their effort to institute a traditional Malagasy law called a *dina*. This *dina* had the "central intention of halting all crop production within two meters of the tracks and bridges" (Freudenberger 2000: 7), and all *tavy* within 50 meters of the right-of-way (Rarivony 2002: 25). In a country that is known for the difficulty of enforcing laws handed down from the national government, one author states, "in

practice, a social pact [like a *dina*] is a force of regulation between its members” (ibid.). FCE supporters worked with the traditional leaders and elected officials of each community along the line to secure their support so they would adopt and enforce the *dina*. In order to implement the *dina*, though, they had to organize a traditional ritual sacrifice called *joro*. *Joro* is a “ceremony that is held to honor the ancestors and give thanks for their blessing and assistance” (Sharp 1993: 167). According to Dahl,

If a project...is to succeed, the *fady* [taboo] has to be lifted *before* the enterprise starts. This is often done with the help of *joro* (invocation and eventually sacrifice). A cow or calf is slaughtered, and the traditional healer performs rites and offers prayers to the ancestors to take away all sorts of *fady*. It is a kind of contractual agreement with the ancestors. (Dahl 1999: 65).<sup>32</sup>

The *joro* performed for the *dina* was a very public act recognizing the connection between the FCE and Malagasy ancestors. Practicing *tavy*, thereby, became synonymous with dishonoring the ancestors and risked the condemnation by local officials and other members of the community.

Tangible evidence also attests to the idea that the FCE is a heritage based on a connection to the ancestors. Malagasy often commemorate particularly important events or people using monoliths (Kottak 1980: 13). At the Mandriampotsy Falls stands an obelisk dedicated to the men who perished during the FCE’s construction or who were killed in the 1947 rebellion (Figure 7).<sup>33</sup> Every year, the FCE staff, ADIFCE and local Malagasy hold a ceremony at a monument recognizing the sacrifice of SMOTIG workers and the victims of 1947. For those pioneers whose bodies could not be recovered and placed ceremoniously into a family tomb, the whole FCE can actually serve as both a physical testament to their sacrifice and as a final resting place. When walking through the long Ankarampotsy Tunnel, for

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<sup>32</sup> Feeley-Harnik notes, “the elder male members of lineages are formally charged with interceding between the living and their dead ancestors by means of the ritual known as *joro*” (Feeley-Harnik 1984: 3).

<sup>33</sup> The role of the 1947 rebellion also played into the FCE’s heritage because a lot of fighting occurred along the line. The Northern Railway also had as much fighting and potentially more deaths occurring on the line during the conflict. However, multiple sources have confirmed the FCE’s sense of heritage and ownership by people along the line is much stronger.

example, many Malagasy leave a small tribute to the workers reportedly killed building the collapsed tunnel (Elders focus group, Ranomena, 30 Aug 2009).



Figure 8 FCE monument to victims of SMOTIG and 1947

The solidarity built by FCER and the ADIFCE through the Heritage Campaign paid dividends in halting *tavy*, but also in unforeseen ways during Madagascar's 2002 political crisis. When political rivals bombed bridges or established roadblocks across the country in an effort to force a run-off election (Tiersonnier 2004: 105), the FCE's population united across the political spectrum. According to Mark Freudenberger, regional director for CAP's successor project, "both sides agreed that they can fight on other things, but they had to support the FCE" (SSI with Mark Freudenberger, Fianarantsoa, Jul 2008). Up and down the line, community members organized to form the *Andrimasom Pokonolona* (ANP), which means "the people who watch" (SSI with Informant 18, Manampatrana, 07 Sep 2009). These local "community guards" protected the FCE's vital infrastructure points from acts of sabotage (ibid.; Rarivony 2002: 26).

These men camped out along the right-of-way at night, seven days a week for up to four months at some locations. Members of ANP gave different reasons for protecting the FCE, including national unity and protecting their own economic interests. But in every ANP focus group I interviewed, the men broached the idea

that the FCE was a heritage that needed protection.<sup>34</sup> When asked if they realized the danger that awaited them if saboteurs came to blow up the key Sahasinaka Viaduct, one informant stated, “it would be worth it to die for this patrimony” (ANP focus group, Sahasinaka, 17 Sep 2009). Their role was not trivial because with so many roads out of commission, including the only road supporting the port of Manakara, the FCE played a major role in supplying fuel and salt to both Fianarantsoa and the capital. Remarkably, one of the most unreliable pieces of infrastructure in the country, which had almost been written off a number of times as unprofitable and not worth the cost of operating, helped avert a serious health crisis for much of the population and played a potentially critical role in the country’s political trajectory. To a large extent, the recognition of the sunk human costs of the men who built the FCE prevented the country from sinking into a worse state.

SMOTIG left a deep mark in Malagasy popular memory, and it seems likely that the experiences of laborers forced to build other colonial railways were just as potent. Abé notes that the Bassa living in proximity to the Cameroon’s Transcam I Railway also view it as a heritage from the ancestors who were forced to build the line (Abé 2006: 224). The population feared a concessionaire’s elimination of railway stops would lead people to forget these workers’ sacrifices and lose some sense of their self-identity (ibid.).

Given the lamentable histories of colonial railways in SSA that caused such immense suffering by colonial subjects, relabeling these colonial railways as heritage infrastructures worth protecting could give their proponents another point around which to rally support. Colonial railways like these could be in a strong position to approach UNESCO in a bid to secure the status of a World Heritage Site.<sup>35</sup> Perhaps it is merely that nobody has yet revived these memories or framed these

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<sup>34</sup> In the Manampatrana ANP, they even included heritage in the category of national unity.

<sup>35</sup> Many colonial railways, including the FCE and Transcam I, would qualify for World Heritage Site status based on criterion vi. It is likely that the case could be made for other criteria as well depending on the context of the candidate railway (<http://whc.unesco.org/en/criteria/>). Although this status would offer very little direct financial support, it may serve as a source of pride to the local population and raise the profile of the railway both nationally and internationally.



lines as heritages. Railway supporters could therefore focus on the shared suffering of colonial subjects to protect other railway infrastructure in SSA facing similar challenges. The case of the FCE shows that supporters of colonial railways have the potential of changing the image of these lines from decrepit, anachronistic public works to infrastructure heritages full of resilience and value.

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## Chapter 3

### Rationality and Railways: Hitting a Moving Target

#### I. Introduction

Colonial railways play key roles in many less developed countries (LDCs), particularly in sub-Saharan Africa (SSA) where transportation infrastructure—of any mode—is relatively sparse. Colonial powers built scores of railways in SSA, but these lines have generally fallen into disrepair since independence despite the important contributions they make to the urban and rural areas they serve. While beneficiaries lament these railways' conditions, their perspectives are not always shared by those actors who influence transportation investment in these countries. In fact, some experts have implied or even explicitly portrayed colonial railways as relics from a bygone era that consume an undue amount of public resources (e.g., Bickers 1976,). Typically, these railways only receive endorsement when they are profitable, which in most cases necessitates the transportation of bulk goods (e.g., Alston 1984a: 2; Bullock and Gwilliam 2010: 235). It is unsurprising, therefore, that so many deficit-running railways in SSA are in such poor shape or have already closed.

Beneficiaries of railway service have usually sought to preserve these lines by appealing to their political representatives. Such appeals, though, do not necessarily change the minds of experts who affect decisions. This is because transportation experts often rely on positivistic methods to justify their decisions. In fact, transportation planning is mostly concerned with empirical observation, predictive models and data analysis that fit well with the ideology of those espousing positivist thought (Simon 1996: 2, 35; Willson 2001: 22). Quantifiable performance measures, especially economic measures, play a central role in transportation analyses, in part

because they give the appearance of being objective. Experts who lead the analyses, however, determine these variables that tend to capture selected economic measures regardless of whether they actually contribute to larger goals such as poverty reduction and the protection of local livelihood. This tilts decisions about railways in a certain direction even before examining the broader context – often to the detriment of the railways that now require significant rehabilitation work due to age and neglect.

While justifying railway investment and renewal decisions almost exclusively on economic rationale and financial performance is consistent with the transportation field's appreciation of instrumental rationality, it has taken on a new tone thanks to neoliberal theory.<sup>36</sup> Experts who adhere to neoliberal theory argue that market forces should provide transportation service to ensure efficiency and profitability (e.g., Moore 1993). Whereas the instrumental rationality largely focuses on the execution of a process in an efficient manner without necessarily concerning itself with the larger goals, a neoliberal approach focuses on achieving an ideological end. Specifically, it seeks to remove state and public involvement in transportation services to the greatest degree possible (World Bank 1983: i; Moore 1993: 7; Simon 2008: 96-97). Neoliberal advocates have sought to excise government and politics from transportation the decision-making process itself. Its adherents, particularly within international development institutions (IDIs), call for deregulating and privatizing this sector where governments have historically played a major role in the name of the public interest. Experts at IDIs have, by virtue of their institutions' power and resources, pushed neoliberal goals and the measures that will determine whether a transportation service merits support because of their power and resources.

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<sup>36</sup> Many experts, particularly critics, use the term “neoliberalism.” Neoliberalism is often used pejoratively, but this article aims to use the term “neoliberal” in a value-neutral way to describe the broader approach taken to use market-oriented approaches that its proponents support while also speaking to the larger audience interested in critiquing this approach.

Neoliberal principles have hit colonial-era railways particularly hard, yet not without the occasional amount of resistance. As this paper argues, despite being formidable barriers, the perspectives and analyses that lead to the reductions in railway service in SSA are not as unyielding as they initially appear. Typically, users have enlisted their own local power to resist reductions in railway service. For example, faced with service cuts, station closures or even shuttering an entire line due to poor financial performance, railway supporters and beneficiaries have sometimes sought to protect their interests by appealing to their political representatives (see Monson 2006: 114; Kerr 2007: 146). Yet in an era when transportation decisions in LDCs are highly influenced by IDIs, which are relatively immune to local political pressure, railway supporters need new strategies if they are to make an effective case for these lines. Such strategies need to convince experts and public officials who may be initially entrenched in a culture that values a positivistic approach over all others.

The case of Madagascar's Fianarantsoa-Côte Est Railway (FCE) shows how its advocates sought to also sway the opinions of IDI staff using both qualitative and quantitative arguments. Keeping the railway operational in spite of cyclones and threats of sabotage during a political crisis was not an easy feat. International lending policies and negative evaluations by IDIs, though, posed a consistently significant threat to the line's existence and the livelihood of the 100,000 people who benefit from its service. The railway illustrates how the predominant rationalities for transportation investments have shifted over time from a colonial justification to a public service obligation before being subjected to a neoliberal rationality emphasizing full-cost recovery and privatization. Yet unlike other cases where railway supporters directed their appeals only to political leaders within the country, FCE supporters resisted intentional efforts to close the line by drawing upon benefits not usually considered in traditional positivistic analyses. Demonstrating the importance of the line to IDI staff, particularly through personal tours, helped change preconceived notions. The effects are noticeable considering that the World Bank (hereafter referred to as "the Bank") went from a position



making its closure a condition of further loans to one where they programmed millions of dollars to help rehabilitate the line.

This paper relies on focus groups and semi-structured interviews (SSI), archival documents and other secondary sources about colonial railways and transportation policy in sub-Saharan Africa to better understand how the views of these lines can shift. The next section discusses the general downward trajectory of colonial railways in SSA. To appreciate the task of convincing transportation experts as to the value of a railway, it is also necessary to understand what their general perspective is and how they assess the value of transportation investments. The subsequent section, therefore, discusses how positivist and neoliberal development ideologies and their rationalities have impacted transportation investment in LDCs, followed by a look at how they specifically impact the railway sector. A discussion of the FCE case follows before this paper concludes with a discussion of how broadening rationality through an inclusive, context-sensitive approach is an essential first step in the direction of a balanced view of railways that better serves the public interest.

## **II. Sub-Saharan Railways: From Robust to Rust**

Railways played a large role in colonial powers' development vision for SSA. During the colonial period, railways received extensive and often uncritical support that enabled their realization. Governments helped secure loans and laborers for railway construction while contending that these lines would enable indigenous populations to live in civilized, developed territories. Colonial administrators sometimes claimed that their greatest contribution to material welfare in Africa was the development of new markets through their investment in transportation technology (Lugard 1922 in Hilling 1996: 5, 9; Austen and Headrick 1983: 177). Colonial supporters and critics alike also saw railways as key to ending the

backbreaking practice of portage that caused the abuse and suffering of many indigenous people (ILO 1927: 61; cf. Pourtier 2007: 192).<sup>37</sup>

In reality, colonial railways were not the humanitarian endeavor their proponents sought to portray them as. Indigenous people suffered and died in great numbers while working as forced laborers to construct these railways. Colonial profiteers and administrators strongly lobbied their governments for the authority and infrastructure to recruit these workers. They also sought government financing because these transportation infrastructures facilitated the exploitation of new territory and the transport of merchandise from the colonizing country. Governments also surely found it desirable to support their national railway manufacturers and the contractors who built these lines. The footprints of these railroads, which almost invariably run from the countries' ports to strategic hinterlands, reveal the desire by colonial powers to assert political and military control, access natural resources and create new markets for their own economic advantage (Hilling 1996: 77; Simon 1996: 50; Gray 1999: 87; Pourtier 2007: 192). This also harmonized with local administrations' aims to make their territories economically self-sufficient at a minimum and, ideally, generate a surplus production for export (Sharp 2003: 78).

The end of colonialism removed railways' major source of financing as well as some of the initial justifications for subsidizing their infrastructure and operations. Many railways had long depended upon colonial subsidies for operations and free indigenous labor for maintenance and renewal projects. Even "profitable" or break-even railway operations received external subsidies for infrastructure and rolling stock renewal (Bullock 2005: 2, 27). Independent countries sometimes built trunk roads that duplicated railway routes, which shifted traffic to motor vehicles and cut into railway revenue (Bickers 1975: 3; Griffiths 1995: 186). They also gradually eliminated colonial policies prohibiting trucks from directly competing with these

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<sup>37</sup> Indigenous populations were often hired or forced to work as porters to carry colonial goods or the colons themselves for hundreds of kilometers.

lines, which has adversely impacted railways' budgets – especially considering that road-based travel is priced too low to cover routine maintenance and is therefore given an unfair advantage (Taaffe et al. 1963: 513; Gwilliam 2011: 134, 364). These factors made funding railway maintenance work even more challenging, decreasing these lines' reliability, which thereby increased the appeal of road-based travel and further cut into railway revenue – trapping many lines in a “downward spiral” that they have not survived (Hilling 1996: 110).

Keeping the trains running in SSA has been anything but simple without their former resources and due to their declining ridership. Harsh climatic conditions present a pervasive challenge to maintaining railway service – particularly in the tropical countries where intense tropical storms frequently cut lines by causing landslides and washouts (Gleave 1992: 264; Freudenberger and Freudenberger 2002: 189). Armed conflicts and social unrest have also led to the destruction of railway infrastructure (Griffiths 1995: 120; Bullock 2005: 27). Even standard use has taken its toll on aging infrastructure and rolling stock – resulting in broken axles, cracked rails and failed traction motors. The lack of domestically produced equipment and spare parts, particularly in SSA, has increased the expense of maintaining these lines because everything must be imported (Moriarty and Beed 1989: 128). Those railways that have remained operational following independence have regularly deferred essential maintenance and cut back on service. Bullock notes that the African continent is full of railways best described as “walking wounded” (Bullock 2005: 27).

It is clear that fewer railways exist now and declining reliability is making even those remaining ones less competitive with other transportation services. Even the conditions on some of the largest railways in LDCs can be extremely poor (Hilling 1996: 104-105). In a sample looking at the broader statistics of roadway and railway provision in LDCs, each country added thousands of kilometers of paved roadways in the first three decades after independence whereas roughly half of these countries' trackage figures actually declined (Simon 1996: 18-19). This trend is well reflected in the infrastructure-poor region of SSA, which has had a greater

funding gap than in other areas of the world (Bullock and Gwilliam 2010). Today, railway lines extend almost 90,000 kilometers in 39 countries on the African continent (Pourtier 2007: 190; Bullock 2009: vii; Gwilliam 2011: 85).<sup>38</sup> However, the actual number of kilometers that are actually operational is far lower (see Appendix A).

While all countries have limited budgetary resources for transportation provision, the gaps between LDCs' resources and their transportation needs are indeed greater than in developed countries. This is particularly true in SSA where governments have had to make tough decisions on how to allocate scarce resources across large areas for competing interests. Railways not only vie for their share of renewal funding against other transportation investments, but also compete against other publicly funded services such as healthcare, education and security (Bullock 2009: 18). Therefore, the more a railway can cover its costs, the less of a burden it will be for any given government.

The relatively high costs necessary to maintain even basic railway operations, their limited resource base and their geographically concentrated benefits, however, do not fully explain why LDCs have increasingly invested more on roadways. The rapid decline is also due to ideological commitments of those being asked to support these LDCs' transport sector. Governments have had to repeatedly borrow money from IDIs—especially the World Bank—just to keep lines running. However, these funds would only be provided if the railways (and governments) met certain stipulations. Such financial and external pressures have not benefited SSA railways. Unfortunately for those users who rely on or benefit from them, colonial railways in SSA have been closing down with ever-increasing frequency.

As discussed in the following two sections, the perspectives of IDIs have impacted transportation planning processes in LDCs. The next section examines and critiques the dominant forms of rationality commonly used by IDIs and others to

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<sup>38</sup> Bullock notes that there are 36 countries (Bullock 2009: vi), but this figure has been updated in Appendix A.

justify transportation decisions. The implications of extending their ideological views to railways in LDCs are discussed in the subsequent section.

### **III. The Partiality Hiding behind Rationality**

IDIs have often employed the words “rationality” and “rational” to describe their work and goals in the transportation sector with the implication that a unitary form exists. Clearly nobody wants transportation decisions to be made on an irrational basis, but it is important to remember that “rationality” is a multifaceted, contested concept. Rationality has been described as the accounting for an action of belief, or in other words, why a person acts or thinks a certain way (Darke 1985: 16). A distinction, however, has been made between the means and the ends in the decision-making process. For example, the positivist tradition emphasizes “formal” rationality, which is concerned with *means*-oriented activity – the *process* of offering an explanation for certain actions and beliefs rather than dealing with the beliefs themselves (see Brehany and Hooper 1985: 9; Darke 1985: 16). This functional or instrumental rationality allows for the “systematic identification of alternative courses of action, and selection of those most likely to achieve given ends” (Teitz 1985: 138). Some theorists have argued that the social sciences generally hold a “rational” act to mean one whereby an actor has reason to believe it will most efficiently produce the sought-after goals (Reade 1985: 77-78). Formal rationality therefore depends on experts who use procedures and analyses such as quantitative calculations to deem what is rational or not (Darke 1985: 18).

The concept of “objectivity” is closely linked to this positivist planning tradition because it holds that these planning experts should and can be impartial observers and analysts of any given planning concern – much like a scientist or neutral technician (Goldberg 1985: 122). As such, objectivity requires that the examiner be separated from any given entity, idea or phenomenon being studied (*ibid*). Willson asserts that instrumental rationality draws its epistemological foundation from scientific objectivism whereby experts are assumed to be able to observe objective

facts without affecting the results (Willson 2001: 5). He argues that instrumental rationality and objectivist epistemology are so strongly linked that failing to support one makes it difficult to justify the other (ibid.). In short, positivist ideology like instrumental rationality holds that planning experts should focus on the means of reaching certain ends in a supposedly objective way if they want to be considered as acting rationally. It is no surprise that planners have sought to portray their methods and recommendations as rational “so as to give these an aura of objectivity” (Reade 1985: 92).

Many planning researchers have taken exception with the positivistic tradition’s emphasis on formal rationality and the possibility of achieving true objectivity (e.g., Simon 1983; Darke 1985; Goldberg 1985; Forester 1993; Willson 2001; etc.). Achieving true objectivity is not only unrealistic, but it is likely undesirable (Goldberg 1985: 122-123). Darke warns of allowing rationality to be identified solely as the process that produces reasons rather than include an examination of the substance of those reasons (Darke 1985: 16). The process essentially becomes a goal in itself where the process becomes an activity “divorced from theorized end-states” (McCarthy 1978: 26 in Breheny and Hooper 1985: 9). As Forester so aptly notes, relegating our definition of rationality to one consistent with instrumental rationality’s focus on process could produce disquieting results that violate our common sense (Forester 1993: 69).

This emphasis on process has been especially pronounced at bureaucracies. At these institutions, Darke asserts, rules that have been created as a means to certain ends can turn into the ends themselves (Darke 1985: 19). This can cause bureaucracies to “become rigid, inflexible, unresponsive to public pressure and more impersonal than necessary, because formal rationality is emphasized above all else” (ibid., 19-20). Such accusations have been leveled against the Bank, for example, which makes its decisions “on a rational basis referring to rules, regulations, procedures, contracts and expertise” (Vetterlein 2012: 53). Although the Bank has experienced a significant cultural shift following sustained advocacy campaigns since the 1980s, critics of the Bank have continued to critique the lack of

responsiveness and transparency (Ebrahim and Herz 2007: 9-10). It has been argued that the Bank uses quantification and economization to deal with issues out of a bureaucratic desire for standardization and efficiency, but at the expense of complexity that results in the overlooking local and practical knowledge (Vetterlein 2012: 37, 49-50).<sup>39</sup> As discussed below, the Bank's emphasis on procedural rationality actually has the effect of not only minimizing concerns important to communities affected by its policies, but also serves to elevate a neoliberal rationality.

Researchers critical of formal rationality and its various iterations emphasize the need to consider how goals are formulated as well as how those ends' meet societal needs (e.g., Darke 1985; Forester 1993; Willson 2001). Determining the desired outcomes requires consideration of "substantive" rationality, which explicitly seeks to bring "values, ideals and moral thinking into the discussion of action" (Darke 1985: 19). Essentially, the formulation of desired outcomes to meet human needs is a normative exercise that stands outside analytic rationality that only evaluate the most efficient means to predetermined goals. Substantive rationality is, therefore, an essential counterpart to balance instrumental rationality used by any social organization (Flyvbjerg 2004: 285).

Despite the importance given to substantive rationality and the critiques of relying solely on formal rationality, the transportation field maintains a particularly strong philosophical connection with positivist thought. Flyvbjerg notes that while "many planning researchers consider positivism a long-dead phenomenon of the 1960s and 1970s," others have argued persuasively that positivism has decreased "only on the surface of things" (Flyvbjerg 2004: 286). This certainly appears to be the case given the transportation field's reliance on hard statistics and push for economic rationality. In fact, the social sciences largely view transportation planning as "unimaginative" or "technical" due in large part to the transportation field's

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<sup>39</sup> Vetterlein notes that the economization of the 'social' can lead to social issues only being considered by the Bank if there is an economic benefit (Vetterlein 2012: 50).

strong disciplinary “ethos of ‘rational science’” that focuses on technical design issues, empirical measurement or analyses using an uncritical lens of neoclassical economics (Simon 1996: 1). The field tends to characterize the researcher as an impartial analyst who works to inform or evaluate policy and investment decisions (Willson 2001: 5). Moreover, transportation decision-making is best characterized as elevating instrumental rationality with its emphasis on process over other forms of understanding (ibid., 3).

IDIs like the Bank, which significantly influence transportation investments in LDCs, have exemplified this. Simon argues that positivism, rational science and modernization theory “form the conceptual foundation” of the major IDIs (Simon 1996: 35). Certainly this assertion seems true for their activities in the transportation sector given how much they rely on formal rationality and its emphasis on quantitative methods. Although IDIs like the Bank have considered non-economic impacts of transportation investments for decades (e.g., Sorca-Beceka 1966; Galenson and Thompson 1994), the assumption that higher measures of economic growth on a national scale equate with increased development still dominates (Friedmann 1992: 38; Simon 1996: 8). This thinking extends even to the level of individual infrastructure and services because their contribution to national economic growth becomes the primary justification for investment. The field does not lack reports, analyses and other publications claiming or seeking to understand the link between transportation investments to the gross development product (GDP) or gross national product (GNP).

Contributing to the economic growth of a nation is a desirable aim, but this does not necessarily result in development (Friedmann 1992: 38). The metrics used to measure it can be instructive when used appropriately and critically, but the use of those measures as the final determinants of development decision-making also have many valid critiques. Many times an economic average, such as GDP, masks serious inequity (Rodney 1981: 15). Moreover, much that society would deem undesirable, including ill-being and accidents, actually contributes to GDP (Chambers 1997: 40). Even studies that seek to simply determine the effects of transportation investments



on a macroeconomic level without putting it into a larger context risk reinforcing the assumption strongly held by many experts that these measures are the most critical ones that should be used – elevating them to the status of ends rather than just means. As Chambers cautions, though, “what is measured may also not be what matters” (ibid.: 40). Stated another way, it may matter to a few experts and not to those people who are the target of development efforts. Even when analyses are done at the project level, the assumption is a project’s realization will somehow contribute to national-level development.

Cost-benefit analysis (CBA) is a highly positivistic tool widely used to evaluate transportation projects and facilitate comparison with other potential investments – even those in other sectors. As Damart and Roy (2009: 205) observe, CBA “is frequently judged capable of scientifically revealing objective elements that will justify a decision to implement or abandon an investment project.” The benefits of a given investment are monetized using figures from the context, projections based on any changes and values from other examples. Sen states that economists’ preference for market-price-based evaluation is rather strong (Sen 1999: 80). Experts tailor the figures, with varying degree of success, to the infrastructure or service under examination. Ultimately, they arrive at a bottom-line number—either an economic internal rate of return (EIRR) or a benefit-to-cost ratio—that can be compared to other competing uses or another standard used to denote an opportunity cost. IDIs consider this analysis important for determining whether a project should receive financial support (Rebelo 1992: 33). For example, the Bank would not consider funding infrastructure projects in Madagascar with an EIRR below 12% – the predetermined discount rate that served as the opportunity cost for capital (World Bank 2000: 17, 46).

Critics of CBA have taken it to task on many points. One critique is that experts have almost complete control of this process wherein they shape what variables are included and, therefore, what values they produce (Chambers 1997: 44, 54). Besides introducing the experts’ own source of bias, the values can be skewed by misleading market values or stated preferences that differ from what users actually do

(Chambers 1997: 45; Root 2003: 5; Damart and Roy 2009: 205-206). Experts may also be susceptible to influence, both inside their organization and outside of it, and have been known to adjust goals to fit the analysis – thereby doing CBA backwards (Chambers 1997: 45). Although using only monetized values make CBA and its quantification appealing to those who have positivist leanings, the consideration of some factors (e.g., environmental externalities, the value of human life, etc.) can be complicated, highly subjective and controversial (Root 2003: 4; Damart and Roy 2009: 206).

The use of multicriteria analysis (MCA) strives to reduce the overreliance on (and bias by) experts and still maintain a formally rational decision-making process. Critiques of MCA, though, do not stray far from those leveled against CBA. It looks a lot like CBA when experts are the ones controlling the values. In a revealing statement about the use of MCA in planning railway investments, Rebelo notes “it would be ideal to have a multi-criteria analysis, including economic and financial rates of return. However, it would be unrealistic to expect that all the regions or districts would have the personnel to do such calculations” (Rebelo 1992: 28). So even though MCA allows different actors to weight variables according to their own perspective, this does not mean that the final outcome adequately considers impacts that will disproportionately affect some actors and not others.

Criticism of positivistic measures and approaches does not mean that those attributes the transportation field has traditionally investigated do not matter; rather that the transportation field has fallen victim to what Flyvbjerg has called the “rational fallacy.” The rational fallacy “consists of raising analysis and rationality into the most important mode of operation for human activity, and allowing these to dominate our view of human activity: so much so that other equally important modes of human understanding and behavior are made invisible” (Flyvbjerg 2001: 23). As mentioned above, rationality is not a single monolithic concept and so it would be more appropriate to state those who fall victim to the rational fallacy raise a very specific form of rationality (i.e., formal or instrumental) above all others.

If either CBA or MCA were just one of many tools used in a balanced decision-making process, it would be less of a concern because it is a reasonable step to attempt to calculate a project's opportunity cost given that investment resources in LDCs are limited. Yet all too often, CBA and similar types of analyses become the primary tool by which experts and public officials make decisions (Chambers 1997: 45). Flyvbjerg asserts, "we should not criticize rules, logic, signs and rationality in themselves. We should criticize only the dominance of these phenomena to the exclusion of others in modern society and in social science" (Flyvbjerg 2001: 49).

Indeed, by focusing so heavily on measures, models and technical processes—especially economic and financial performance—the transportation field too often leaves concealed the true genesis of planning decisions. Reade has argued that planners use of the word rationality as a slogan that "serves to conceal the real nature of their activity, even from themselves" (Reade 1985: 92). Believing that the most rational argument can be found and will prevail is highly problematic when considering the fact that power can determine who participates in the process as well as what counts as "rational." Foucault argues, "to respect rationalism as an ideal should never constitute a blackmail to prevent analysis of the rationalities really at work" (Foucault 1980: 317 in Flyvbjerg 2001: 98). Power is self-reinforcing, particularly in the existing transportation decision-making processes that through their technical nature excludes many participants who could argue for including certain factors currently ignored or minimized. As Foucault would contend, "power produces rationality and truth; rationality and truth produce power" (Flyvbjerg 2001: 124). In other words, those who currently wield power determine to a large degree what goals and measures are important; yet the tools and measures that are deemed important remain largely inaccessible except to those who already have power.

Traditionally, prominent players have included bureaucrats, politicians and other public officials, but IDI experts have come to play increasingly crucial roles in the development process. On the whole, IDIs have exerted significant influence impacting LDCs' transportation decisions. In addition to the influence they garner by

providing grants and loans in other sectors, their perspectives remain influential for transportation decisions because they are the largest source of non-state funding for transportation projects in LDCs (Hilling 1996: 102). Given that much of the road construction and maintenance in LDCs is externally financed by IDIs, this brings these institutions—and their expert staff and consultants—in as “stakeholders” whose role is rarely passive (Schroeder 1997: 396). In fact, IDIs have the power to provide or even block financing that could help LDCs and their crumbling transportation systems. Receiving Bank approval, for example, impacts the willingness of other IDIs and private lenders to fund transportation projects because their approval is seen as a guarantee that a project has been vetted (George and Sabelli 1994: 12;).

Although IDIs portray their goals as consistent with positivist ideals that adhere to a single form of rationality that assumes objectivity is possible, their positions are in fact often undergirded by a series of implicit ideological commitments most aptly labeled as “neoliberal” theory. Those experts falling into this category believe free market resource allocation and the removal of “state ‘distortions’ of markets” (e.g., regulations, fare-setting, public subsidies) will create better opportunities for macro-scale economic growth and prosperity (Ferguson 2006: 11; cf. Moore 1993; Murray and Overton 2011: 308). They have often expressed the view that decision-making based on politics rather than “economic optimization” is undesirable “interference” (Briceño-Garmendia et al. 2010: 70-71; Bullock and Gwilliam 2010: 238). IDI experts have argued that transportation decisions based on politics are problematic because public officials and bureaucrats are motivated not so much by the public interest as their own personal concerns in pleasing their supervisors and influential interest groups (e.g., Moore 1993: 8; Gwilliam 2011: 109). This assertion may be correct, but it also wrongly implies that IDIs, their staff or the free market have the ability to make objective decisions that are inherently more rational because they conform to procedures and rules.

Following what came to be called “the Washington Consensus,” the overarching agenda of what critics have termed pejoratively “neoliberalism” called for the

“disengagement of the state” (Diouf 1997: 309; Harvey 2005: 13; cf. Stiglitz 2002: 74). Supporters even acknowledge that “it took a change in the ideological climate for the political system to change its policies” in favor of a market-based approach (Moore 1993: 11). Adhering to this ideology goes even beyond the pursuit of goals that a sizeable number of IDI experts deem “rational” (e.g., profitability and efficiency). Instead, it dictates that governments should participate as little as possible in transportation provision – a sector where government has traditionally played a large role (Doyen 1991: 5-6; Carbajo 1993: 11). In its purest form, this means that governments should not regulate the transportation sector nor subsidize its services. The state can still, however, provide transportation infrastructure under this approach because it enables the private sector to participate in the transport sector. Moore contends that evidence supports the virtues of deregulation and that “the theoretical justification for *believing* that a free market works better than regulation is unambiguous (Moore 1993: 11).<sup>40</sup> As the next section illustrates, colonial-era railways have suffered as a result of this “neoliberal turn” without necessarily even delivering on the promises of a market-oriented approach.<sup>41</sup>

#### **IV. Getting Government out of the Railway Business**

Although railways had largely fallen out of favor decades earlier, neoliberal theory made public railways an explicit target for closure. A Bank publication called *The Railways Problem* provides an insightful look into how neoliberal concepts advanced by IDIs targeted railways. In this report, the Bank took the position that governments needed to take action on railways because they had “become a bottleneck to development as well as a growing drain on Government financial resources” (World Bank 1983: executive summary). It criticized the use of public subsidies for unprofitable lines and encouraged strong measures to avoid them because “economic efficiency, as demonstrated by railways’ ability to attract traffic

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<sup>40</sup> Italics added.

<sup>41</sup> David Harvey seems to have come up with the term “neoliberal turn” in his book [A Brief History of Neoliberalism](#) (2005).

at prices related to costs, is what is sought” (ibid.: 32-33, 39-40). Essentially, they had reframed the problem so that government was not only the victim of unprofitable railway service, but it was also part of the problem.

Adherents of neoliberal theory have advanced two main solutions to the “railway problem.” First, they have suggested replacing uneconomic railways with a derestricted roadways sector (ibid.: 121).<sup>42</sup> For decades, IDIs have repeatedly assumed that roads could substitute for railways – if not perfectly, at least very well.<sup>43</sup> LDCs have generally added thousands of kilometers of roads to their infrastructure, which makes motor vehicle travel more attractive. In many cases, new roadways paralleled existing railways, which made them direct competitors (Griffiths 1995: 186). Derestricting the trucking industry while not adequately taxing it or policing overloading—thereby giving an unfair advantage to transporting goods by road—accelerated railways’ decline (Hilling 1996: 110; cf. Gwilliam 2011: 105-106). The push to liberalize LDCs’ economies and privatize parastatal organizations led to the closure of branch lines and even some main trunk lines (Simon 1996: 17).

The second and generally more palatable strategy pushed by proponents of a market-oriented approach has aimed to privatize railways, which many national governments have consented (or relented) to do since the 1980s (Bullock and Gwilliam 2010: 229). This has most often taken the form of concessioning, where the state retains ownership of the right-of-way and fixed infrastructure while private operators accept ownership of the rolling stock and operations. Concessionaires can then reduce the railway’s labor force, which experts usually label as overly large or overpaid (World Bank 1983: 18-19; Rebelo 1992: 3; Gwilliam 2011: 115-118). Advocates also aim to introduce private financing. The argument that private operators can reduce operating expenses and more

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<sup>42</sup> The Bank pushed a substitution approach in Sierra Leone, which led to the railway’s closure but left many areas with no railway and no roads.

<sup>43</sup> While IDI staff have always recognized the importance of roads, including to complement railways, IDIs increasingly came to view roads as near perfect substitutes for railways. The discussion about the FCE below will show this attitude.

effectively compete with other modes is true to a point. More sophisticated marketing could increase revenue while privatization agreements could permit the cutting of both unprofitable service as well as reduce the size of the railway's labor force (Rebelo 1992: 4, 14; Galenson and Thompson 1994: 29-30). Private companies, particularly when backed IDIs, have more freedom to make such economically "rational" decisions that are often politically unpopular. Another goal of privatizing a railway is to remove political influences from "rational" forms of decision-making. Traditionally, concession deals have allowed private operators to be insulated from pressures felt by public railways. Unsurprisingly, IDI pressure has led the majority of African countries to pursue privatization of their railways (Bullock and Gwilliam: 2010: 238).

Whether or not privatization delivers on its promises is open to debate. Although neoliberal proponents claim that eliminating public subsidies for a railway will have a net-positive effect on the larger economic picture of the country, these gains could be offset by costs in other areas such as healthcare, public safety, and the environment (Béranger 2006; Kolozsvari 2012a). Even supporters of railway concessions admit that privatization efforts have met with mixed results based on their IDI standards (Bullock and Gwilliam 2010: 229-230). Evaluations show that privatized railways only show a significant difference from their government-operated lines in terms of rolling stock availability and productivity (Vagliasindi and Nellis 2010: 113). Although privatized lines may be more reliable, these gains may be linked to renewal investment packages offered by IDIs and governments in tendering the offer (Gwilliam 2011: 112). In fact, Gwilliam (2011) notes that railway traffic performance was "determined more by supply factors than by underlying demand" (ibid.: 95).

Despite their failure to prove that their approach alone results in overall reduced costs to society and improved performance that is sustainable, proponents of a market-oriented approach often fail to acknowledge the other important factors that make operating a railway worthwhile. Supporters of lines can present arguments that open up the rationale for operating a railway from one focused on

just EIRR to one that considers a broader picture. The next section presents the case of Madagascar's FCE, which is illustrative of how colonial SSA railways have experienced the gamut of rationalities affecting them. It also shows how supporters have successfully challenged a narrow definition of what is purportedly rational in terms of transportation investment. In addition, it also demonstrates that IDI can be amenable to these other actors' points of view when presented with them.

## **V. Madagascar's FCE: Shifting Rationalities**

The FCE epitomizes much about colonial railways. As with other populations forced to build colonial railways elsewhere in SSA, the Malagasy suffered and died in great numbers building this line (Wiersema et al. 2001: 27; cf. Kolozsvari 2012b). In justifying the line's construction, one colonial official affirmed that the FCE was a "rational" investment because it would "unlock" the rich agricultural area it would traverse (Roques 1900: 21-22). Built at great financial expense to the French (Frémigacci 2006: 179), the FCE never lived up to the lofty projections with even some colonial officials acknowledging shortly after its opening that the line would probably remain unprofitable for some time (Pruvost 1938: 17). Still, the French continued to subsidize it and other railways that they considered a "public service" (Thomas 1937: 16). Of course, the public service aspects from a colonial perspective included supporting colonial plantations along the line and facilitating the importation of French-made goods (Lackard undated: 1), and lastly providing public transportation to the Malagasy population.

It did not take long after the French pulled up their colonial stakes with Madagascar's independence in 1960 that the viability and utility of the FCE came under increasing scrutiny. Declining revenues coincided with IDI evaluations recommending that other African countries close their railways (Richards 1996: 42; Heggie 1988: Annex C). A study written after independence by Sorca-Beceka consultancy for the United Nations Development Program (UNDP) states that replacing the FCE with a roadway would be preferable from the "user's stand-point"



(Sorca-Beceka 1966: 163). The study also notes that from the railway network's perspective, operating the stand-alone FCE "hardly pays" (ibid.). The study concludes, however, "reckoning with its public utility aspect, it would thus be unwise to discontinue its operation, more especially as, from the view-point of general economy, replacing the railway with a Fianarantsoa-Manakara road link would cost the public more money" (ibid.). The public utility rationale initially spared the railway from closure, but it did not necessarily solve the issue of this line's poor financial performance and its dependence on subsidies for maintenance and renewal.

Like many SSA countries, Madagascar faced a severe economic crisis in the 1970s that limited its ability to maintain its transportation infrastructure (Pryor 2001: 197, 265). The problems facing the Malagasy railways, known as the Réseau National des Chemins de Fer Malagasy (RNCFM), and the FCE in particular, continued to draw the attention of IDIs. Yet the problem began to be perceived as one where government ownership and operation resulted in the irrational provision of transportation service. In order to deal with this perceived problem, the Bank launched its First Railway Project in 1974, which focused on replacing rolling stock, but which also funded a "railway modernization and rationalization study" to guide future major railway investments in Madagascar (World Bank 1974: 1).

Bank staff working on this project repeatedly recommended closing the FCE so as to increase the overall profitability of the RNCFM. Although the FCE's passenger traffic increased from 334,000 passengers to 787,000 passengers from 1967 to 1975, its freight traffic decreased from 51,500 tons to 43,000 tons during the same period (Cheryn and Vick 1978: 5). While many transit agencies would proudly tout doubling their ridership in less than a decade, revenue-generating freight activity was the only measure that mattered to many at the Bank.<sup>44</sup> One Bank staff member wrote that the FCE "is clearly uneconomic. I do not see any future for this line.

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<sup>44</sup> This view is exemplified in a consultant's report that states passenger service would be a "burden" to the Malagasy railways (SOFERAIL 1977: 22-23).

Investments in infrastructure (such as ballast, sleepers, etc...) are hardly justified here. Probably this line should be abandoned and the right of way used for a road if necessary” (Nanjundiah 1977: 1).<sup>45</sup> Recognizing the highly political nature of transportation decision making in Madagascar and specifically for a line closure, the project deferred any recommendation on the FCE’s future until after the completion of a study evaluating the line’s long-term prospects (Roulet 1978a: 2).

Like Sorca-Beceka, CANAC consultancy labeled the FCE as uneconomical and concluded the line was unlikely to recover its “full cost” from users (Capoluongo et al. 1985: 10). Their study identified two possible alternatives: 1) subsidizing FCE service or 2) closing the line and replacing it with a road – with the latter being the “more economical long-term solution” (Pouliquen 1985: 12; Graves 1985: 7). Yet this study also acknowledged the FCE’s public service aspect and concluded that the railway must remain operational in the short term until adequate road service could be provided (Pouliquen 1985: 12). Moreover, replacing the FCE with a road was not a perfect solution. Bank staff recognized the primary national roadway connecting the high plateau with Manakara needed rehabilitation, was 100 km longer and did not exactly parallel the railway (ibid.).

Even with doubts about the effectiveness of a replacement road, the Bank continued their push to have the Government of Madagascar (GOM) “rationalize” the Malagasy railways. The Bank had been assisting with the “evolution of the RNCFM towards a commercially oriented institution” by pushing for a structural reform changing the RNCFM from a government department to a “Public Industrial and Commercial enterprise” (Brown 1985a: 1; Alston 1984b: 4). The goal of profitability became so strong that the Bank repeatedly pushed RNCFM to increase their railway tariffs despite government resistance (Crochet et al. 1981: 3; World Bank 1979: 13; Roulet 1978b: 1). Implementing additional tariffs in 1982 became a key part of lifting a suspension on Bank-backed railway financing (Gyamfi 1982: 1). Only in

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<sup>45</sup> Underline in original. Anyone who has actually seen the FCE, though, would quickly realize that the tunnels are too small to permit large trucks to pass safely and would therefore limit the utility of any such replacement road for existing users.

retrospect did Bank staff admit a “misjudgment when it *let* the Government implement unduly high tariff increases in 1982-83. Tariffs at the end of 1984 may actually have been so high that some customers switched from rail to road transport” (World Bank 1987: 23).<sup>46</sup> Ironically, Bank staff also admitted that it had failed to meet its “institutional objectives (financial responsibility)... [and this] raises a basic question over the adaptability of the proposed measures to the local environment; the Bank tried, in fact to impose a concept of a commercially oriented enterprise in a sector usually regarded as public service in African and European countries” (World Bank 1981: 25-26).

Rather than concede that their policy objectives were flawed, the Bank viewed the Malagasy as needing more time to implement the desired reforms. The Bank noted that the CANAC study could give rise to a “test issue” for the commitment of the GOM to these structural reforms (Alston 1984b: 4). Internal discussions focused on how the Bank would persuade the GOM to create “an action plan for the FCE” based on the findings of the CANAC study by making it a condition of bringing a new loan to the Bank’s board of directors (Brown 1985b: 14). That action plan would have to be “satisfactory” to Bank staff who reiterated in the same sentence that the FCE was “uneconomic and should be closed” (Alston 1985: 1). So even though the study had not been completed and vetted by the GOM, the Bank’s preferred course of action had already been determined, as had the coercive tools they’d use to realize it.

According to members of the GOM delegation sent to Washington D.C., the FCE’s closure was a sticking point in negotiations with the Bank (SSI with Informant 2, Fianarantsoa, 24 Jun 2008; SSI with Informant 11, Antananarivo, 18 Jul 2008). A former Malagasy official who participated in the discussion stated that the discussions with Bank staff became quite heated – particularly when the Bank recommended closing the FCE (SSI with Informant 11, Antananarivo, 18 Jul 2008). From the GOM’s perspective, closing the FCE was unrealistic because the

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<sup>46</sup> Italics added.

Fianarantsoa province completely encompassed the line, and its elimination would cut the only existing all-weather regional transport link connecting Fianarantsoa with the Port of Manakara. Moreover, the cash-poor population living along the FCE had few affordable transportation options. The implications of appearing to target and perhaps further impoverish one of the poorest provinces in the country, that happened to contain the large city of Fianarantsoa, made the proposed closure politically untenable.<sup>47</sup>

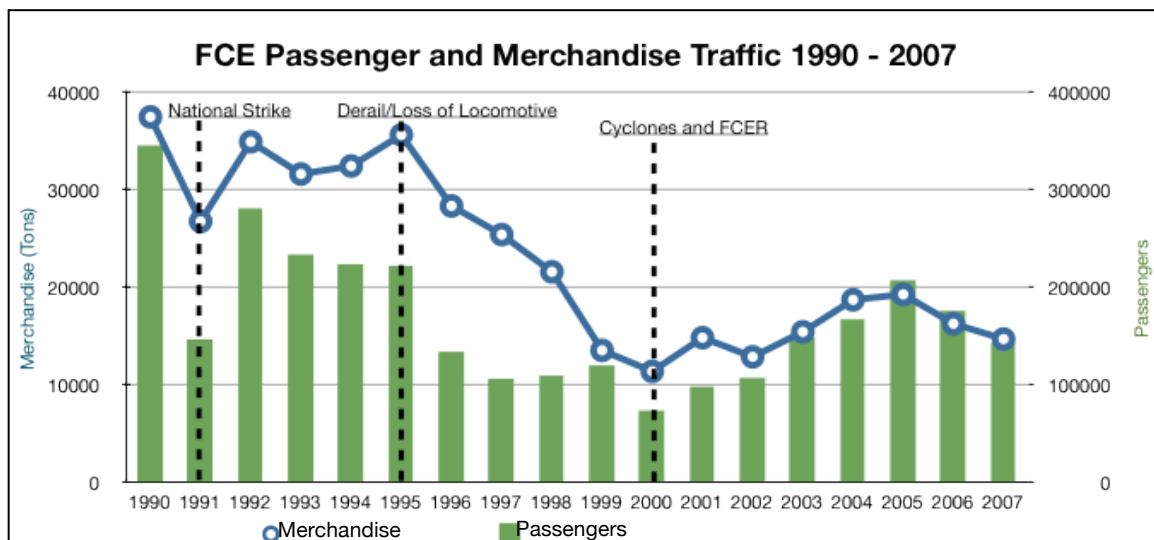
At the end of a series of negotiations, though, both sides agreed the GOM would submit an action plan to deal with the FCE. This secured the Bank's agreement to give the FCE time to reduce its deficits and become profitable (Elmendorf 1986: 1). The Bank stated that road-based alternatives to the FCE would be investigated as part of the action plan and that in the meanwhile, the GOM could only conduct basic maintenance and must also reimburse the RNCFM for operating losses (Brown 1985a: 2). While the FCE did not return to profitability by 1987, they had reduced its deficit to a quarter of its 1985 level and all its performance indicators had increased (RNCFM 1987: 8). By 1989, the FCE's annual deficit had dropped to just \$65,000 from a loss of \$405,000 in 1984 (Bostom 1990; Wiehen 1986: 2). This was in part due to tariff increases, as well as increases in passenger and freight traffic that a more reliable railway spurred. Yet as Bank staff surmised, the achievement of reducing the deficit could only be achieved by "under-maintaining infrastructure and equipment and that this situation could not persist into the mid- and long-term" (World Bank 1990: 5).

The 1990s, indeed, saw a reversal of the FCE's hard-won gains. The railway lost revenue both from a nationwide strike in 1991 and increased road competition (Weisema et al. 2001: 29; Tiersonnier 2004: 54-57). A cyclone in 1994 not only damaged the railway, but also strengthened the trucking industry's grip on regional fuel shipments arriving at the port of Manakara even the FCE's ability to transport

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<sup>47</sup> Such a decision may have ethnic tensions at its roots. The Fianarantsoa area is home primarily to the historically repressed Betsileo and Tanala ethnic groups and the loss of the railroad may be viewed by some as another slight by the dominant Merina ethnic group.

fuel for less (Weisema et al. 2001: 29). Another major blow to the line’s reliability and service came in 1995 with the derailment and loss of one of the FCE’s three locomotives (Rakotoarison 1998: 29). The precipitous decline in the FCE’s ridership and merchandise traffic over this decade, as illustrated in Figure 1, was both a cause and symptom of the railway’s continuing problems.<sup>48</sup> According to one observer, “the trains were basically falling apart on the tracks and the tracks themselves were falling apart” (SSI with Informant 12, Phone interview, 26 Nov 2008).



**Figure 9 FCE Passenger and Merchandise Traffic (1990 to 2007)**

Even though the FCE suffered from cash flow problems and major neglect of its infrastructure, its worth did not go unnoticed. The USAID-funded program Commercial Agricultural Promotion’s (CAP) primary mission of supporting the development of agribusiness in the Fianarantsoa region included a high-profile rural infrastructure rehabilitation project that aimed to lower transportation costs in order to promote agricultural commodities (CAP 1998: 3). The FCE director approached CAP’s staff with a request for support, making the case that the railway essentially served the same function as roads for the isolated villages along its length (SSI with Informant 12, Phone interview, 26 Nov 2008). Even studying the line, though, was a professional risk because it had been studied so much by the

<sup>48</sup> FCE Director Medard Rakotozafy provided the ridership statistics.

Bank and its consultants for the previous decade (SSI with Informant 36, Phone interview, 19 Jun 2011).

Still, CAP staff agreed to consider the request after visiting the line and commissioned an economist to visit the FCE and write a report on its importance and viability. The study, which also used hard numbers, affirmed that the FCE enabled local farmers to export their agricultural goods and obtain essential household goods for less than if shipped by road (see Table 1). The report warned against looking at just short-term profitability and encouraged adopting a more global perspective that recognized the FCE's synergistic and external benefits (Godeau 1996: 27). It recommended an "aggressive intermediate strategy to give an opportunity to those most committed to the railroad's future to demonstrate its capacity to succeed" (CAP 1997: 1). This recommendation contrasted sharply with previous studies calling for its eventual closure and became the basis on which CAP included the FCE in its rural infrastructure program (CAP 1999: 5). CAP provided equipment and management training, which in turn helped reduce the FCE's operating costs. CAP also worked with other organizations to leverage funding – ultimately channeling roughly \$2.9 million in donated railway equipment to the FCE as well as funding for its staff (Freudenberger 2000: 3). This infusion of capital kept the railway alive in the face of imminent closure while supporters worked on a strategy to rehabilitate the line.

Comparison of Transport Costs in FCE Corridor			
	Transport by road	Transport by train	Cost of train relative to road
Distance	240 Km	163 Km	
Passenger fare			
1st class	\$5.94	\$3.76	63%
2nd class	\$5.94	\$2.21	37%
Goods Transport			
10 tons exclusive	\$285.31	\$149.93	53%
1 ton (au detail)	\$28.53	\$16.05	56%
1 ton (express)	\$28.53	\$18.45	65%
Note: Costs are from 1995 and in 1995 USD			
(Godeau 1996: 36)			

**Table 1 Comparison of transport costs in FCE corridor**

Despite CAP breathing some new life into the line, a pair of cyclones struck the island in 2000 that severely damaged the FCE. A combination of the lack of functioning drainage systems (i.e., culverts) and farmers practicing *tavy* (slash-and-burn agriculture) too close to the right-of-way contributed to the soil instability around the FCE’s tracks that led to four major washouts and 280 landslides that dumped approximately 150,000 cubic meters of soil on the tracks (Freudenberger and Freudenberger 2002: 189). An investigative team set out in the aftermath of the storms and found that the closure had immediate and significant effects on the population who depended upon the railway. The prices of products of primary necessity (PPN) that reached midline stations by train (e.g., salt, kerosene and rice) went up drastically. For example, the price of rice in village shops increased overnight by 30 to 50 percent (ibid.). Still worse, the price increases occurred as these villages lost their primary means of transporting agricultural goods that brought revenue to these communities (SSI with Informant 6, Manampatrana, 12 June 2008). At one of the FCE’s highland stations, the team “found 54 tons of rotting

bananas waiting for a train that never came” (Freudenberger and Freudenberger 2002: 189). In addition, the always-serious issues of contaminated water and disease in these remote villages became a graver threat with no means to evacuate the seriously ill to Fianarantsoa for the two months that train service was suspended.<sup>49</sup>

Coincidentally, the cyclones hit just as a study called *Projet d’Appui à la Gestion de l’Environnement (PAGE)* began examining broader environmental policy in the province’s forest corridor – home to a tropical forest that holds some of the most unique biodiversity in the world and which the FCE traversed (Freudenberger 2003: 141).<sup>50</sup> The PAGE study ultimately concluded that without regular train service, farmers would have no choice but to switch from producing tree-based cash crops to a self-sufficiency lifestyle based on *tavy* aimed at growing rice and manioc for their own consumption (Freudenberger and Freudenberger 2002: 189-190). In addition to preventing serious food-insecurity in these communities, the study estimated that 95,000 hectares of deforestation could be avoided by keeping the FCE running (ibid.: 190). This savings stemmed from the FCE’s ability to concentrate transportation use and natural resource exploitation more than if the rural population relied on a more dispersed road network (Freudenberger 2003: 141). FCE proponents used this study to argue that the best way to avert environmental and social devastation was to keep infrastructure that already existed.

Conveying the FCE’s importance to external actors, particularly the Bank, required more than just qualitative claims of avoided deforestation and improved livelihood. Expatriate development staff recognized they needed to articulate the railway’s importance in the language of the Bank and other IDIs. These FCE supporters began an effort to sell the social and environmental benefits to the Bank

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<sup>49</sup> Although statistics on emergency medical evacuations are not kept, FCE director Medard Rakotozafy notes that two such cases occurred in the first half of 2008.

<sup>50</sup> Given the political sensitivity of the FCE dossier and forest-related environmental issues, the PAGE study was commissioned to provide an impartial evaluation of the questions being raised.



in their language (i.e., using economic and quantitative analyses).<sup>51</sup> These actors ensured the PAGE study included a CBA that included the traditional metrics consistent with Bank methodologies, but that it also looked at how the natural environment, local market and individual producers would be affected under both normal operations and a “no-train” scenario. For example, placing a monetary value on every hectare of avoided deforestation brought in a variable often not considered and in a way that made it difficult for Bank staff to ignore. The PAGE study concluded that the FCE’s EIRR was between 15 and 16% (Freudenberger et al. 2000: 12, 14). This rate slightly exceeded the Bank’s minimum investment threshold and made the FCE a viable project that supporters could defend in meetings with IDI experts, their colleagues and their superiors.

The “environmental argument,” with its food security implications and the hard statistics to support it, clearly grabbed the attention of the Bank more than a straightforward poverty alleviation argument. The institutional environment of the Bank in the 1980s, when it had originally tried to close the FCE, was markedly different. In fact, campaigns mounted by civil society organizations (CSOs) and other nongovernmental actors since the 1980s successfully pressured the Bank to consider the adverse environmental and social impacts caused by their operations (Fox and Brown 1998: 2; Keck and Sikkink 1998; Ebrahim and Herz 2007: 9-10).<sup>52</sup> So while the EIRR for the FCE was lower than some potential Malagasy projects, the external benefits notably softened the Bank’s previous stance of insisting on the line’s closure. Bank staff even noted, “the economic rationale for a minimum investment program will have to be built upon the substantial positive externalities in terms of environmental preservation” (World Bank 2000: 19).

The PAGE study gave railway supporters a key tool with which to directly argue against closing the railway, but it also became a proactive way to raise money for

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<sup>51</sup> Vetterlein describes the process of “selling the ‘social’ to the economists” in the case of poverty reduction (Vetterlein 2012: 53).

<sup>52</sup> The Bank was highly affected by criticism for its poor environmental and social record for projects like the Carajas Iron Ore Project and the Western Amazonia highway and rural development program known as POLONOROESTE in Brazil (see Redwood 1992).

the line's rehabilitation. CAP's successor project, USAID-financed Landscape Development Interventions (LDI), had been tasked with finding interventions that protected the forest corridor that the FCE traversed. With the PAGE study's findings circulating, and the devastating economic and social impact of the two cyclones so visible to regional actors, LDI staff successfully advocated to USAID to design a stand-alone FCE-Rehabilitation project (FCER) that would also be charged to raise and spend funds from donors for line rehabilitation. Staff from FCER took a leading role in both conveying the FCE's benefits to IDI staff and seeking to find financial support from donor agencies to repair the line enough to make it attractive to potential concessionaires. FCER ultimately helped channel approximately \$4.7 million of USAID cyclone relief money to rehabilitate the line as well as secured financial or in-kind donations from partners such as the African Development Bank, the European Union and the Swiss Railways among others (FCER 2003: 24). These efforts resulted in the rehabilitation of over a third of the line's rails, restoration and acquisition of rolling stock, construction of new drainage infrastructure, stabilization of embankments, and rehabilitation of tunnels and bridges (ibid: 11, 33). It also paid for an expansive marketing campaign that, enacted in conjunction with their partners, sought to build support for the FCE from the grassroots for the line's privatization and to convince Malagasy farmers to better protect the infrastructure and surrounding forest.

FCE supporters saw privatization as their main goal and only long-term solution available to them. So while modest bilateral funding and donated equipment were kept the trains running, they also helped improve the FCE's financial and technical performance that would in turn build the case that the line was valuable enough to privatize. The Ministry of Transport, the FCE administration and FCE advocates took steps to market the line to potential concessionaires as an opportunity to develop passenger traffic and tourism. In fact, raising the fares on the first-class passengers (mainly tourists) greatly improved the financial performance of the line. The increased reliability of the line once rehabilitation got underway in 2000 led to even better performance, as seen in Table 1. Between 2000 and 2005, the FCE generated

a profit each year (Allix and Rigaud 2007: 19). Despite initial gains, though, many actors needed persuading.

Convincing IDI staff and other external actors occasionally required more effort than the qualitative and quantitative arguments that were now circulating. Despite the PAGE study findings, skepticism that the railway was worth preserving ran high among experts at both USAID and the Bank (SSIs with Informants 7 and 8, Fianarantsoa, 13 Jul 2008).<sup>53</sup> This skepticism was understandable because so many past studies had concluded that the FCE should be closed. Supporters of the FCE came to realize that people's opinions were shaped in part by whether they saw the railway in action. According to CAP's chief of party, for example, the Bank consultant who recommended closing the railway as part of the CANAC study said he had never visited the railway and that he saw no need to do so because he had all the line's performance data and financial reports (SSI, Phone interview, Jun 2011). One IDI informant noted that the Bank suffered from an internal fight over the FCE because most staff who saw the train supported it while those who had only read reports held a negative view (SSI with Informant 10, Antananarivo, 16 Jul 2008).

FCE supporters based a key intervention on the idea that seeing the railway held tremendous opportunity to shape people's opinions about the line. Recognizing the problem of conveying the line's importance to those who might need convincing, railway supporters repeatedly organized overhead flights and field visits for IDI staff, government officials and potential concessionaires. These visitors then rode the FCE to see the area it traversed and met with railway staff and members of civil society actively involved in the effort to protect the railway's future. LDI's regional project manager noted that these well-planned field visits created a "learning environment to bring policy makers from Washington and [Antananarivo] down to the field to have a safe, educational learning experience that would then profoundly change their perspectives on the FCE. Every time we did it, except for one or two

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<sup>53</sup> Even the eventual director of the FCE rehabilitation project was "highly dubious" when initially asked by USAID to evaluate the importance of the line prior to FCER's creation (SSI, Fianarantsoa, July 2008).

times it worked very, very effectively. So that was our mechanism of making change happen” (SSI, Fianarantsoa, July 2008).

IDI staff who worked on the FCE dossier confirm that riding the FCE influenced their perspective on the railway. For example, FCE supporters argued that the FCE helped to reduce poverty. The FCE has consistently played a central role in providing basic access to villages along the line, but visiting the communities and seeing the bustling activity at the stations reinforced this fact for IDI staff (SSIs with Informants 30, 32, 35; Phone interviews; 19 Dec 2010, 22 Apr 2011, 05 Jun 2011). These IDI staff developed an appreciation for the isolated nature of some of these rural communities (SSIs with Informants 30 and 32, Phone interviews, 19 Dec 2010 and 22 Apr 2011). This would make seeing the act of loading and unloading products onto the train more meaningful. It was also an opportunity to hear directly from members of the community about how the FCE supported their livelihood (SSI with Informant 30, Phone interview, 19 Dec 2010).

Seeing the line with one’s own eyes conveyed information that photos or reports never could. According to IDI staff, the social, economic, and environmental importance of the FCE had to be seen in person (SSI with Informant 10, Antananarivo, 16 Jul 2008). They mentioned being impressed by the beauty of the unique natural landscape surrounding the railway and the line’s dramatic descent down from the high plateau to the coast (SSIs with Informants 32 and 35, Phone interviews, 22 Apr 2011 and 05 Jun 2011). Photos of the dense forest could not adequately capture its scope and beauty in the same way. In fact, seeing the railway in person gave these actors a deeper appreciation for the feat of constructing a line with such a steep grade and so many tunnels (SSIs with Informants 32 and 35, Phone interviews, 22 Apr 2011 and 05 Jun 2011). Hearing stories directly from descendents of those Malagasy men who suffered and died building the line reinforced the appreciation of their toil and sacrifice. In fact, the FCE became known as the ‘Heritage Railway’ and many villagers expressed their disquiet about its potential closure, which they consider as sacrilegious. These vivid emotions were captured during this period by several independent filmmakers with one film

showed widely on European television. One USAID assistant director, who visited the line and had requested to have a cultural experience during his stay, ended up enjoying the experience so much he walked away with tears in his eyes (SSI with Informant 8, Fianarantsoa, 13 Jul 2008). While the heritage argument perhaps appealed less strongly to other IDI staff, it generated tremendous community support and this was palpable for those who visited the line.

The level of support and passion shown by advocates of the railway also influenced outsiders' view of the railway. One IDI staff member noted that the commitment of FCER staff made a strong initial impression (SSI with Informant 30, Phone interview, 19 Dec 2010). Another IDI staffer echoed this observation and emphasized that the passion of those handful of people leading the effort to rehabilitate and privatize the line was something that made the FCE stand out (SSI with Informant 35, Phone interview, 05 Jun 2011). One expatriate volunteered copious amounts of time securing donations of used rolling stock and dozens of kilometers of rail and bolts from Swiss railways that also had the same narrow-gauge. The commitment of these actors might have been more noticeable because many Malagasy people tend not to speak out, or as one informant said, they practiced "rational risk taking" (SSI with Informants 7 and 8, Fianarantsoa, 13 Jul 2008).<sup>54</sup>

A notable exception to the tendency of Malagasy to avoid conflict and risk-taking was the Mayor of Fianarantsoa and President of the Organisme Public de Coopération Inter-communale (OPCI) during the FCE's rehabilitation phase: Pety Rakotoniaina. The mayor made the FCE rehabilitation a high political priority. Rakotoniaina organized a meeting in the capital to rally support for the FCE railway. This meeting occurred (perhaps not by coincidence) at the same time and hotel as a meeting of international donors in the same hotel. It led the donors to be relegated from the ball room to a smaller venue within the hotel. Some informants saw this

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<sup>54</sup> Malagasy, in terms of their culture, are generally known to be relatively conflict-adverse (SSI with Informant 35; phone interview; 05 Jun 2011).

meeting as a provocative move against then-President Ravalomanana who had originally installed the mayor as the chief of the Fianarantsoa province following the 2002 crisis, but who then had a falling-out after the latter became the mayor (SSI with Informants 7, 8, 25, Fianarantsoa, 13 Jul 2008 and 6 Oct 2009). Indeed, some informants believed that the president viewed the Rakotoniaina as a political threat. This is possible given that the mayor was eventually imprisoned for years on corruption charges, but which many people believed was motivated more out of fear that the outspoken mayor would eventually challenge Ravalomanana. Informants had mixed feelings about the meeting because while they thought it would do little except anger the president, it was an rare example of a Malagasy leader speaking up for an uncertain cause (SSI with Informants 7 and 8, Fianarantsoa, 13 Jul 2008).

USAID-funded project personnel could take the risks that their Malagasy counterparts were initially unwilling to take. In one example, FCE supporters took a group of USAID staff on a study tour of the line just after the line had been reopened following the 2000 cyclones. USAID representatives still were not entirely convinced, but invited LDI's regional team to Antananarivo to give a final wrap-up presentation about the FCE's importance to the region and ecological corridor. At the end of the presentation, USAID officials put LDI's regional manager Mark Freudenberger on the spot:

It was a round table and they said 'Mark, would you stake all your money of LDI on the railway?' and I said 'yes.' [They said] 'are you serious? You would do nothing but the railway?' And I said we have to do that in order to save the corridor. It was a very emotional meeting and very scary to go on record like that. And that's when they said 'okay, we're going to start looking for pots of emergency monies,' and they came up with \$500,000 of internal USAID/Madagascar funding as a stop-gap measure (SSI with Mark Freudenberger, Fianarantsoa, July 2008).

In a field where experts imply or even explicitly claim that decisions can be made on an entirely objective basis, even though they cannot, such a bold declaration carried the risk of making him appear irrationally attached to the railway. Yet the people who witnessed such an unwavering determination to save the railway judged his

statement credible and the motivation behind it as a vote of confidence in the line's importance – as evidenced by USAID's decision at that meeting to help secure funding for the line.

Civil society also helped influence opinions about the FCE. CSOs can, for example, raise public awareness and bring that awareness to the attention of IDIs and the government (SSI with Informant 30, Phone interview, 19 Dec 2010). Some of their activities targeted local villagers to increase their ownership of the line. Evidence of their interest in the railway also was demonstrated to IDI staff through discussions with villagers on the field visits as well as materials demonstrating their commitment. For example, farmers living along the line erected signs stating that the railway was their heritage and that it needed protection (see Figures 3 and 4). IDI staff believed this dedication would help ensure the sustainability of investment in the line (ibid.). Photos also showed to IDI staff how community members were helping to clean the line's tracks and stations as well as sow the deep-rooting vetiver plant (*Chrysopogon zizanioides*) on the hillsides to halt erosion (see Figures 5 and 6). Rehabilitation and maintenance conducted by community members along the line demonstrated these villagers' commitment to the railway and also showed their willingness to prevent sabotage and theft that plagued the Northern railway (SSI with Informants 7 and 8, and Informant 30, Fianarantsoa and phone interview, 13 Jul 2008 and 19 Dec 2010).



Figure 10 Sign of solidarity next to vetiver plants



Figure 11 “The train is our heritage so save it”



**Figure 12 Community clean-up in Tolongoina**



**Figure 13 Local farmers planting vetiver**

Having an engaged civil society willing to protect the line's infrastructure also appealed to potential concessionaires (SSI with Informant 31, Phone interview, 15 Apr 2011). Attracting potential bidders with this positive aspect and ensuring a smooth transition to privatization strongly appealed to IDI staff seeking to privatize the railway. Concession deals have sometimes been complicated by resistance from public officials, government staff, railway employees/unions or communities. The Bank saw how railway supporters were building support for the concession and the rehabilitation project from communities and railway workers. The Bank even programmed over \$7 million of badly needed renewal funds for the FCE on the condition that it be privatized (FCER 2003: 24). Bolstered by this sign of support by a potential adversary, optimism among the FCE's supporters ran high. As one FCER staff member noted, they were just trying to neutralize Bank opposition and "we never dreamed we'd get them to come around to our side" (SSI with Informant 7, Fianarantsoa, 13 Jul 2008).

The FCE supporters were soon confronted by the unpleasant reality of political power at the national level, though. Despite receiving a bid that Bank experts deemed credible (FCER 2005: 3), then-president of Madagascar Marc Ravalomanana



scuttled the concession, much to the dismay of those actively involved in the line's privatization.<sup>55</sup> Although the GOM officially cited technical and financial reasons to reject the bid, Bank staff who reviewed the offer noted that these points could be negotiated (*ibid.*). Informants from IDIs and development project staff involved in the process stated that having French companies offer to take over the line raised the hackles of Ravalomanana whose opponent during the 2001 elections was closely aligned with French interests. During the resulting 2002 political crisis, the FCE served as a strategic corridor that helped essential goods and supplies from the coast reach the blockaded capital and helped Ravalomanana win the stalemate. Yet despite the maneuvering by those pushing for privatization, including having the potential concessionaire offer to diversify their holdings to non-French companies and USAID offering to finance a second privatization attempt, the president declined to move forward. This incensed FCE supporters who did not view the railway in this way and had it not been for the intervention of the U.S. ambassador, would have resulted in the expulsion of one outspoken critic of the president's actions (SSIs with Informants 8 and 33, Fianarantsoa and phone interview, 13 Jul 2008 and 26 Apr 2011).

The failure to privatize the FCE meant that it never became eligible for Bank funding, but it also led to a return to a strictly economic view of the line – a major shift in the Bank's policies (SSI with Informant 33, Phone interview, 26 Apr 2011). Bank staff viewed this act as a lack of commitment to the FCE. Moreover, this seemingly arbitrary and capricious act by Ravalomanana clearly was consistent with neoliberal advocates' view that government does not act in a rational way. Without any major investment since 2005, the FCE's hard-won gains have largely dissipated and it has continued to experience service disruptions from cyclones, derailments, and rolling stock breakdowns. The railway's prospects do not look good.

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<sup>55</sup> This assertion was made in multiple semi-structured interviews with FCE supporters, Malagasy government officials and IDI staff.

## **VI. Moving towards a Balanced Rationality**

The case of the FCE shows how certain dominant forms of rationality still impact decisions about colonial railways. The transportation field continues to emphasize the importance of analyses with a particular economic rationality focused on profitability and macro-economic performance measures. Despite waning in its fundamentalism, the market-oriented approach continues to adversely impact SSA railways that provide many significant benefits extending beyond a narrowly defined economic framework.

Yet as the FCE case also shows, various forms of rationality compete and coexist with one another as different actors interact in the decision-making processes surrounding a railway. The rationalities used over time to justify transportation investment have appealed mostly to colonial administrators, public officials and now to IDI staff because they are the ones who have the resources to fund railway rehabilitation or even simply block it. The investment decision-making process for the FCE, though, shows that IDIs' perspectives are neither as omnipotent nor inflexible as they initially appear. The rationalities and perspectives of IDI staff can be shifted by railway supporters' arguments and strategies. Not only did the GOM resist closing the FCE for more than 30 years, railway supporters managed to reverse the Bank's position to the point where the latter promised substantial rehabilitation funding for the line's infrastructure provided that the GOM privatize it.

Having key advocates, or "champions," is critical to shifting the balance of rationality that can help preserve train service. Researchers have recommended having governmental entities—such as a local transportation authority or central ministry—champion a transportation program (Fouracre et al. 2006: 328). In the context of Madagascar, these entities certainly played an important role resisting earlier calls by the Bank to close the FCE. Yet these agencies and their delegates can be subjugated both by political pressures from within the country and also from outside its borders. If this happens, these interests do not necessarily serve anything remotely representing the public interest, especially the portion most dependent

upon the railway. Alternatively, champions who have more freedom from these pressures can often be found outside of government. Members of civil society could, depending on their skills, fill this role. In the case of the FCE, though, key advocates stepped forward at critical junctures to help organize other railway supporters (including civil society) and that helped frame the line's importance in ways that affected those people who had the power to help (SSI with Informant 11, Antananarivo, 18 Jul 2008). These champions tended to be expatriate development experts.

A defining quality of these champions has been their ability to communicate effectively with a wide range of actors. Railway advocates who have strong communication skills can bring in arguments that standard CBAs overlook. This requires being able to speak in the language of transportation decision-making, which means being conversant in positivistic measures and utilitarian rationality. By virtue of their status or professional role, champions could gain access to key international and national actors and review documents related to the FCE. The resulting interaction helped determine if the line was worth saving because they had access to challenge assumptions, arguments, and statistics while simultaneously offering their own. Their ability to secure funding and donated equipment from both IDIs and non-governmental sources helped keep the FCE alive. Moreover, their effectiveness was also determined by *how* they communicated. Showing passion helped convey the importance of the line. Backed by evidence and arguments, persuasive champions could also take risks that others are unwilling to take and show a level of dedication others do not exhibit.

Although important, passion and conviction only takes one's arguments so far in the transportation sector. Understanding CBA and providing feedback on how to modify it was important because bringing in measures like avoided deforestation completely changed the calculation and many experts' view of the FCE. In the case of the FCE, its supporters effectively sold the social and environmental benefits to Bank staff using language and methods consistent with their values. Eschewing traditional metrics and performance measures when evaluating railways arguably

takes decision-making to the other undesirable extreme – much as fundamentalist neoliberal theory insists on divorcing government from transportation service provision regardless of performance. Criticism should therefore be directed at limiting rationality to a very specific definition grounded so heavily in economic terms that turn a blind eye to other values that make a railway worth operating. Correcting the rational fallacy requires all actors involved—especially transportation experts—to carefully scrutinize the criteria, metrics and values they rely on to make decisions.

A key strategy that conveyed the importance of the FCE and balanced the overreliance on traditional CBA was the use of well-planned study tours organized by railway supporters. Those field visits were not passive viewing experiences like seeing photos or even videos. Rather, they provided outsiders with the opportunity to immerse themselves in the world of those people living along the railway. During these visits, staff from IDIs had the opportunity to speak with villagers who actually used the infrastructure and this influenced their perspectives about the line. After all, discussing a report among one’s professional peers in a conference room thousands of miles away is a very different experience than discussing the same content in the communities that depend on the line. Certainly a process like CBA, with its ability to turn complex realities into understandable factors exemplifies instrumental rationality insofar as it is efficient for staff to work in a rarified office environment far removed from the subject of their analysis. Yet this does not mean that their findings will be rational using a substantive rationality. As Chambers notes, “it is difficult for the staff of the Bank to get things right, combining as they do awesome responsibility and power with physical, cultural and cognitive distance from the peripheries and poor people of the South” (Chambers 1996: 99). Yet in this case, Bank and other IDI experts who saw the FCE gained a better understanding of railways’ context and importance than could ever have been gained by looking solely at balance sheets and reports. This helped IDI staff balance the dominant rationalities found within their professional settings (i.e., utilitarian, neoliberal)

with the “substantive rationality,” or value-based rationality of the actors in the field.

Maintaining railway service on these lines is usually “rational” for those actors who derive value from them, but also for society at large when considering the many secondary effects tied to these lines. The loss of benefits to some of the poorest populations is potentially shortsighted from a public investment perspective. As a former Malagasy government official so succinctly put it, you get “nothing but trouble when you close a railway in Africa” (SSI with Informant 11, Antananarivo, 18 Jul 2008). It is a future that many people who use colonial railways like the FCE hope to never see, but have befallen lines like the Sierra Leone Government Railway (SLGR) with significant consequences for the population.<sup>56</sup>

However, since the years of dogmatically pushing the most fundamentalist forms of neoliberal theory, including structural adjustment policies, IDIs like the Bank have increasingly worked with civil society and other non-governmental actors in the decision-making process (Chambers 1996: 99; Ebrahim and Herz 2007; World Bank 2009: 3, 18; Vetterlein 2012). This has occurred primarily on the policy level and the effect nongovernmental actors have on individual staff is still rather poorly understood. In the case of the FCE, though, Bank staff working in Madagascar after the cyclones of 2000 showed remarkable openness to listening to other perspectives and revisiting long-standing decisions that unequivocally labeled the railway as not worth operating. It is questionable if this shift would have ever happened had Bank staff never visited the line to see its importance with their own eyes. The steps taken by all actors in the case of the FCE were in the right direction for reducing the rational fallacy into which transportation planning and decision-making has fallen where standard evaluations consider only narrow economic considerations.

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<sup>56</sup> Although a highway was supposed to serve the same area as the SLGR, it never reached some communities that traditionally opposed sitting President Siaka Stevens and it took decades to reach others (Abraham and Sesay 1993: 120). Richards asserts that cutting off railway service only served to alienate the area from the rest of the country and enable the Revolutionary United Front to build an alternative regime ‘from below’ (Richards 1996: 140). This potentially exacerbated the civil war there.

Although FCE supporters challenged an over-reliance on financial returns and other performance measures, it is also important to note that the majority of actors supported the IDIs' position that management of the line ultimately should be in private hands. It could be that this traditionally neoliberal goal was the bitter pill that needed to be swallowed to gain access to the substantial rehabilitation funding the Bank and other IDIs were promising as a condition of privatization. One can also imagine how IDIs and governments could use civil society to justify their own positions if motivated to do so. Yet as the FCER staff wrote just as the privatization process started to implode, "the danger that the FCE will go out of service if it remains under parastatal management (or if some other long term form of private management is not rapidly put into place) is far greater than any risk posed by going ahead with the currently proposed concession" (FCER 2005: 5). Given the limited options available to railway supporters in SSA, the ability for potential opponents to work together to find the most feasible solutions for a given context surely beats the alternative of watching the railways close with no attempt to save them.

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## Chapter 4

### **Engaging Civil Society to Protect Transportation Infrastructure and Services in Sub-Saharan Africa**

#### **I. Introduction**

Ask someone how to improve their daily commute and they will likely offer a detailed description of what they need and want from the transportation system. In other areas of life in less developed countries (LDCs), including agriculture, education, healthcare, sanitation, governance, agriculture and environmental protection, civil society has played an active role in confronting the development challenges they face. Whether muted or resounding, harmonic or cacophonous, civil society plays a progressively important role in the decisions that will affect them. Yet in places like sub-Saharan Africa (SSA), where transportation opportunities are scarce, expensive, unreliable, or downright dangerous, the silence is striking. Instead, the state, public officials, private enterprise and even international development institutions (IDIs) like the World Bank (hereafter referred to as “the Bank”) have dominated transportation decision-making processes in SSA.

The model of transportation decision-making in SSA pushed by the dominant stakeholders tends to focus on cost-recovery and macroeconomic measures (i.e., GDP or GNP). Although important, myopically focusing on these transportation measures have sometimes harmed the larger populace that depends so heavily on transportation services for their livelihood. Passenger service, for example, tends to be viewed as a liability because it cannot generate profits like goods movement (Gwilliam 2011: 95; Bullock and Gwilliam: 234). Civil society stakeholders can emphasize a more holistic view that better captures transportation benefits that are

difficult to identify or do not lend themselves well to cost-benefit analysis (CBA). Actively involving civil society in transportation decision-making can also translate into having a more transparent discussion about the weighting of these benefits and opens the possibility for identifying feasible solutions to complex problems (e.g., project alternatives).

Who participates in the transportation sector affects how different modes are viewed and evaluated, thereby impacting spending on infrastructure and services. For example, some transportation experts and public officials even explicitly stated that colonial-era railways in SSA are anachronisms that need to be replaced by modern forms of transportation (Bickers 1976: 1). Yet these lines continue to play an influential role in this infrastructure-poor region. Dozens of lines across SSA continue to serve as the backbone of national or regional transportation systems where they support the functioning of regional economies and the livelihoods of millions of people. Yet it is clear from the literature and media reports that conditions and service quality on even some of the most heavily trafficked African railways can be extremely poor (Hilling 1996: 104-105; Gwilliam 2011: 124). Many lines have deteriorated significantly or closed altogether due to benign neglect, while others have ceased operations because politicians or IDIs have directly sought their closure. Decisions to suspend service on these lines, made with little to no input from local communities, can have significant and unintended effects. It is reasonable to ask whether active participation by civil society could have somehow prevented some of these colonial railways from closing.

Civil society's impact on transportation systems in LDCs is understudied, and almost no references exist mentioning organized efforts by civil society to affect transportation outcomes. This dearth of information contrasts with the myriad examples of civil society actively working in other key sectors. Researchers have even made civil society organizations (CSOs) in other sectors the subject of research (Uphoff 2003; Lehman 2008; Roy 2008). Yet the transportation sector is unique and the lack of information about how, if at all, civil society in LDCs affects transportation investments—and railways in particular—is a glaring gap in the



literature because they play important roles in other sectors. Looking at the case where a civil society organization (CSO) worked specifically to protect Madagascar's Fianarantsoa-Côte Est Railway (FCE) can give a clearer picture of how civil society can affect a railway's future. Thus, this article focuses on the CSO to shine a spotlight onto the reasons for their creation and by what means they have impacted the railway's future. Unlike other CSOs that may become involved in transportation issues as part of fulfilling their primary mission (e.g., healthcare, education, environmental preservation), the CSO under study sought primarily to affect outcomes in the transportation sector and would best be described as a transportation-CSO (TCSO).

The presence of a TCSO dedicated to the FCE's preservation sets it apart from most transportation infrastructure and lets it serve as a "critical" case. The fact that most people view railways as the responsibility of either the government or a private entity makes it all the more interesting that civil society became actively involved. In addition, the FCE is a stand-alone, narrow-gauge railway transporting primarily passengers and agricultural goods. This makes the FCE a "most-likely" case where we would have very much expected a line with such a limited resource base to have closed like so many of its sister railways. Its weak financial performance even made it a target for closure by the Bank. Yet the FCE continues to operate, albeit with ever-increasing unsoundness. Using the case of the FCE and its TCSO allows us to answer the following questions: what effect can the presence of a CSO have on preventing railway closures? In addition, what makes a CSO effective or ineffective? Finally, what strategies have CSOs successfully used to motivate their prospective members and galvanize broad support for an unprofitable railway facing a permanent closure? There are many actors who could prevent a railway closure that it would be naïve to think a CSO could single-handedly explain why the FCE continues to run when so many other colonial railways have closed. Still, this paper will argue the active involvement of a CSO was central to the effort to keep the FCE running and in ways that its initiators had not anticipated when they launched it.

This paper draws upon a variety of methods to answer these research questions, including a critical review of archival documents, a review of published literature, semi-structured interviews (SSIs) with key actors who worked on the FCE's rehabilitation, and focus group interviews with railway beneficiaries. The next section discusses the role of civil society in the transportation sector and the presence of TCSOs in LDCs. The subsequent section provides a background on the case of the FCE, followed by a discussion on the formation and actions of its main CSO. Following this discussion, I examine the rise of a second CSO focused on security along the line. Examining the effects of two CSOs in this case, both designed and unintended, helps identify their strengths and weaknesses that could serve as a model to other communities who want to protect the transportation infrastructure and services that affect their lives.

## **II. Civil Society and the Transportation Sector**

Whether in developed countries or LDCs, certain actors and interest groups have long affected transportation decisions, including public officials, political parties, government agencies, unions, chambers of commerce and business lobbies. Researchers have also recognized that civil society activity has influenced transportation decisions in LDCs (Evans 1996; Kerr 2006; Monson 2006). Yet when civil society becomes more actively engaged in the transport sector, it is usually through ephemeral, *ad hoc* movements arising in reaction to perceived threats or opportunities. Interventions using letter-writing campaigns, protests or direct lobbying, etc. have sometimes succeeded, but these usually come after the process is already far along and perhaps too difficult to modify. This has led observers to call for more public participation by civil society in policymaking and also early in the transportation decision-making process (World Bank 2009: 3, 18). This appeal has mostly been addressed by holding a fixed number of public meetings conducted as a perfunctory step in the planning process, but this does not mean participants continue to follow or influence the proceedings after that. Continued involvement in solving development challenges is usually the product of a concerted, organized

effort and is a key reason why the World Bank has increasingly encouraged its staff and borrowing countries to involve civil society early in the process (ibid.: 15-19).

Distinguishing organized civil society from *ad hoc* social movements as well as those actors or groups simply acting as proxies on behalf of state, political or business interests helps us gauge the potential of TCSOs to affect transportation decisions. The TCSOs will be voluntary organizations focused on transportation issues (e.g., safety, infrastructure or service of a single mode or system, etc.). Whether these organizations are formal or informal, members should recognize themselves as forming a group with the central intention of impacting outcomes in the transport sector. If only outsiders recognize these people as a group, then it is more appropriate to label it a social movement. Self-recognition is also important because a TCSO should be both public-serving *and* member-serving.<sup>57</sup> The members of a TCSO will be a subset of the larger population, but they would also be striving to serve the transportation interests of more than just the people who are considered formal members. A respectable amount of leeway should be given as to how one defines “public.” After all, there are competing interests in the public domain so it is not only conceivable, but expected, that forces well within the classification of civil society will clash.

Some groups that are often active and influential in the transportation sector could mistakenly be labeled as TCSOs. Using the standard where groups serve both their members and the public, though, helps filter out some groups. For example, although transportation unions have repeatedly taken action that benefitted the general public, their primary mission is to serve their own members’ interests. Trade groups lobbying for transportation investments have also served the public interest, but their primary objective is to contribute to the financial wellbeing of their member companies and entrepreneurs. IDIs and even many international non-

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<sup>57</sup> In a USAID report, they rely on a definition of CSOs where they may be either public-serving or member serving (USAID 2011: 171). This definition was taken from *Toward an Enabling Legal Environment for Civil Society, Statement of the 16th Annual Johns Hopkins International Fellows in Philanthropy Conference, Nairobi, Kenya. The International Journal of Not-For-Profit Law* 8(1), November 2005.  
[http://www.icnl.org/research/journal/vol8iss1/special\\_1.htm#\\_ftn1](http://www.icnl.org/research/journal/vol8iss1/special_1.htm#_ftn1)

governmental organizations (NGOs) also do not necessarily meet the definition of being a CSO because they can largely lack any members of a target population working for them as staff or serving on their board.<sup>58</sup> NGOs focused on transportation interventions may primarily aim to do public-serving work, but the staff and board who make decisions and run the NGOs may consider the public they serve more like customers than like members. Likewise, the public may not consider themselves as members and view the NGOs as outsiders and charities rather than as a group to which they belong.

In order to better understand which groups are in fact a TCSO and which are not, it is worthwhile taking a moment to discuss the broader concept of “civil society” – a term that has varied broadly over time and which theorists continue to debate (Keane 1988; Friedmann 1992). Although individuals form the building block of civil society, to label *any* group of individuals as “civil society” is problematic because it can include those persons who are acting directly on behalf of the state, politicians or narrow economic interests. Theorists have, therefore, often sought to distinguish civil society based on its *raison d'être* (e.g., development-oriented, religious, philanthropic, etc. as opposed to promoting a specific business, political party or sitting government), its membership or composition (e.g., geographical scope; the inclusion or exclusion of certain groups or people, etc.), and most often its relationship to the state (e.g., supportive vs. adversarial). These various distinctions still lead to conflicting and often confusing identification as to who is and is not part of civil society.

Friedmann proposes a view where civil society is “one of four partially autonomous and overlapping spheres of action and valued social practices” – the others being the state, the corporate economy, and political community (Friedmann 1998: 22). Carving out a fifth sphere called the “transnational nonprofit” sphere,

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<sup>58</sup> This is an interesting sphere of activity because IDIs are closer to the state given their ability to wield power over governments and their population. Some researchers have critiqued NGOs, on the other hand, for promoting their own interests rather than in the interest of civil society (Mercer 2002).

which includes IDIs, NGOs and their designees (i.e., consultants and projects), is an important distinction because, as noted above, these organizations and their staff often do not meet the definition of being both member-serving and public-serving. Essentially, civil society may share similar goals as the other spheres that are easier to define, but it is not acting on behalf of the state, a business, a political group, or a transnational entity.

Civil society's autonomy from the other spheres is, therefore, a crucial defining property. Given its interdependent nature, civil society will be independent enough so that it is at least readily distinguishable from other societal spheres. This is consistent with Friedmann's assertion of civil society's "core meaning" that includes "those social organizations, associations, and institutions that exist beyond the sphere of direct supervision and control by the state" (Friedmann 1998: 21). Obviously civil society would need to have the same autonomy from the other spheres and not just the state. Civil society's autonomy need not be perfect. How a CSO operates, though, would not be dictated by a government, political party/politician or business entity if we are to consider it an independent sphere. Some CSOs will, by virtue of the political context in which they operate, have much greater separation from other spheres. Determining this autonomy, therefore, requires a qualitative examination and reflection both by members and outsiders.

The issue of autonomy does not mean actors from the other sectors cannot assist civil society, including in the formation of CSOs. Spontaneous popular action that forms within a community, even ones relatively better off, is not common and is often limited in scope (Friedmann 1992: 71, 144, 158). Friedmann argues that "the rhetoric of spontaneity" should be abandoned and that theorists should accept that "external agents," or *animateurs*, play a vital role in blowing "the breath of life into the soul of the community and move it to appropriate action" (ibid.: 144). These *animateurs* "are meant to 'spark' endogenous change 'from within,' not to carry out the change program; this is a responsibility of the organized community" (ibid.). We should not underestimate the role that these individuals play in framing arguments so central to the cause of these groups in their efforts. Careful and critical attention

must be paid to whether these actors are furthering the communities' causes or, as could happen, imposing their own perspectives onto a community desperate for development to occur. It is also important for these external actors to ask themselves to what extent can they disengage and, if it is possible at all, at which point.

The need for civil society to be autonomous is implied for theorists who see its role as standing in opposition to other spheres – particularly the state or corporate economy (Keane 1988; Friedmann 1998: 21-22). Of course, civil society need not simply be a force of resistance constantly in opposition to the other spheres, though. Forming cooperative links between government agencies and the public is a potentially powerful development tool. Civil society and the state can work cooperatively towards development goals in what Evans calls 'synergistic relations' (Evans 1996: 1119). One example of this synergy is how local citizens contribute knowledge and experience that would be costly for outsiders (including the state) to acquire (ibid.: 1130). Civil society benefits from receiving more goods and services as well as social capital (ibid). Yet while leaders from government, politics or industry can make valuable contributions as members of TCSOs, having them play a prominent role in the CSO would lead many observers to ask whether a conflict of interest exists.

So while researchers have not studied TCSOs, they have sometimes mentioned the existence of road user associations (Therkildsen and Semboja 1992: 1105; Robinson and Stiedl 2001: 58; Porter 2002: 295-296; Njenga and Davis 2003: 229). These self-help, voluntary associations carry out basic maintenance work on rural roads – often through voluntary means and donated resources for a specific road segment serving the workers' community. Yet no articles have examined how they operate.<sup>59</sup> There are no studies on TCSOs in the transportation sector to

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<sup>59</sup> A literature review using combinations of the key words 'civil society,' 'CSO,' 'NGO,' 'transportation,' 'transportation planning,' 'transportation decision-making,' 'developing countries,' 'Africa,' did not yield any results referring to TCSOs. One article mentions a TCSO engaged in

demonstrate civil society's potential to significantly influence policy, investment decisions or the long-term operations of a given service in LDCs. Besides the lack of information about how many even exist, little attention has been paid to the role, strategies and efficacy of TCSOs in transportation decision-making in LDCs. Unlike examples of CSOs from other sectors, the literature does not investigate how, if at all, these groups engage in the broader transportation planning process or conduct their lobbying efforts.

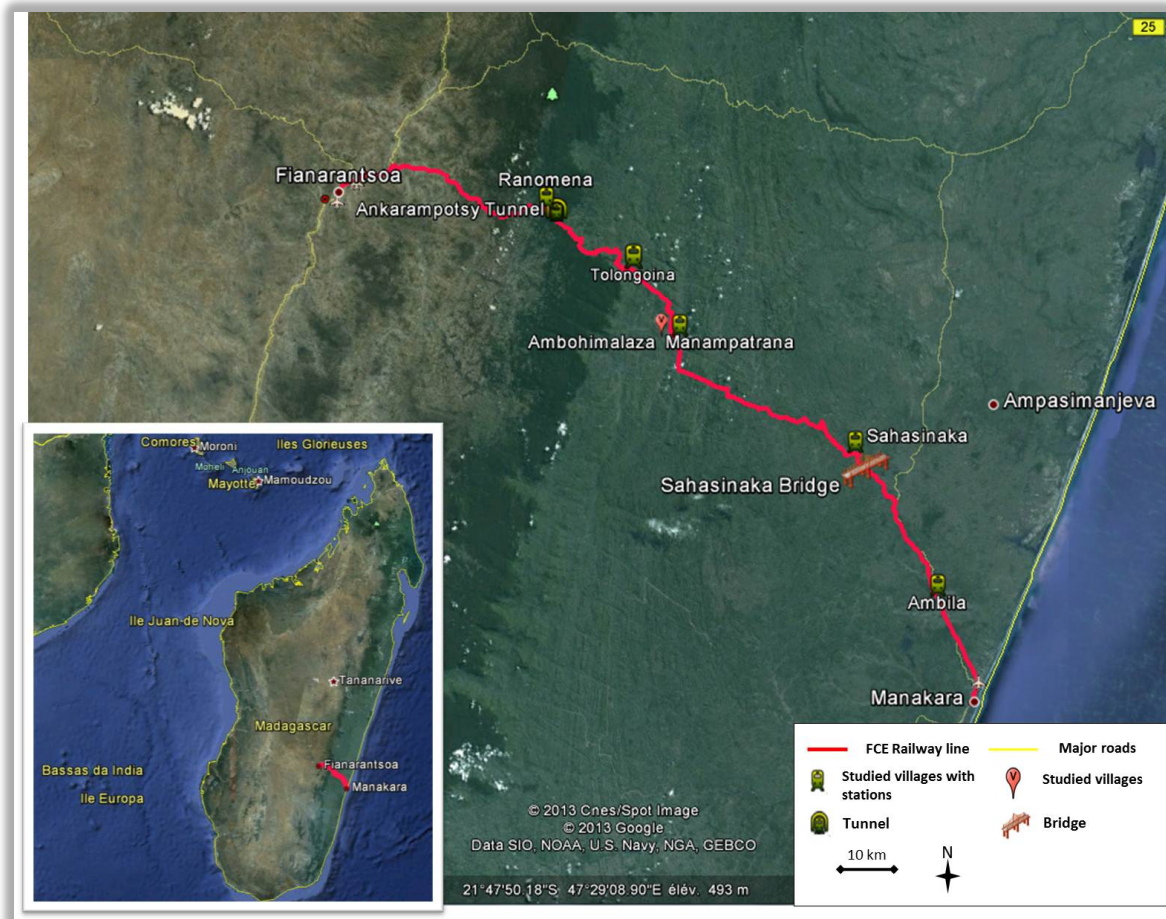
Just as it is difficult to evaluate civil society in the abstract, so it is true of TCSOs. The next section uses the example of the principal TCSO for Madagascar's FCE line to better understand the conditions and steps that led to its formation.

### **III. The Case of the FCE Railway**

As noted in the introduction, the FCE initially followed the pattern of many other colonial railways in SSA. The FCE's layout from the port-city of Manakara to the central highland city of Fianarantsoa reflects the primary motivation of railway building across the continent: furthering the colonial objectives of facilitating the export of natural resources and the import of finished products from the metropolitan countries. Colonial officials sought to link the island's second largest populated city Fianarantsoa directly with Madagascar's east coast so as to "unlock" the rich agricultural area along its length (Roques 1900: 21-22). While it has served military purposes and transported key products like fuel and salt, the railway's core function was and remains to transport agricultural goods such as bananas, coffee, and cloves (Freudenberger 2003: 139).

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promoting development along a Chilean railway line (Ionascu 2009: 11), but since the object of the article is the railway, the author does not explicitly address the role of this group.



**Figure 14 FCE Railway and studied villages**

Even before independence, improvements in the island’s road system and air services in the 1950s caused a precipitous decline in the Malagasy railways’ revenues (Thompson and Adloff 1965: 290). It did not take long after the French pulled up their colonial stakes in 1960 before the viability and utility of the FCE came under increasing scrutiny. A United Nations Development Program study written after independence stated that replacing the FCE with a roadway would be preferable from the “user’s stand-point” (Sorca-Beceka 1966: 163).<sup>60</sup> The report also noted that from the Malagasy railway’s perspective, operating the FCE “hardly pays, especially due to the detached position of this line” (ibid.). The study concluded, however, “reckoning with its public utility aspect, it would thus be unwise to discontinue its operation, more especially as, from the view-point of general

<sup>60</sup> It is unclear if “the user” refers to individual riders or larger commercial customers.

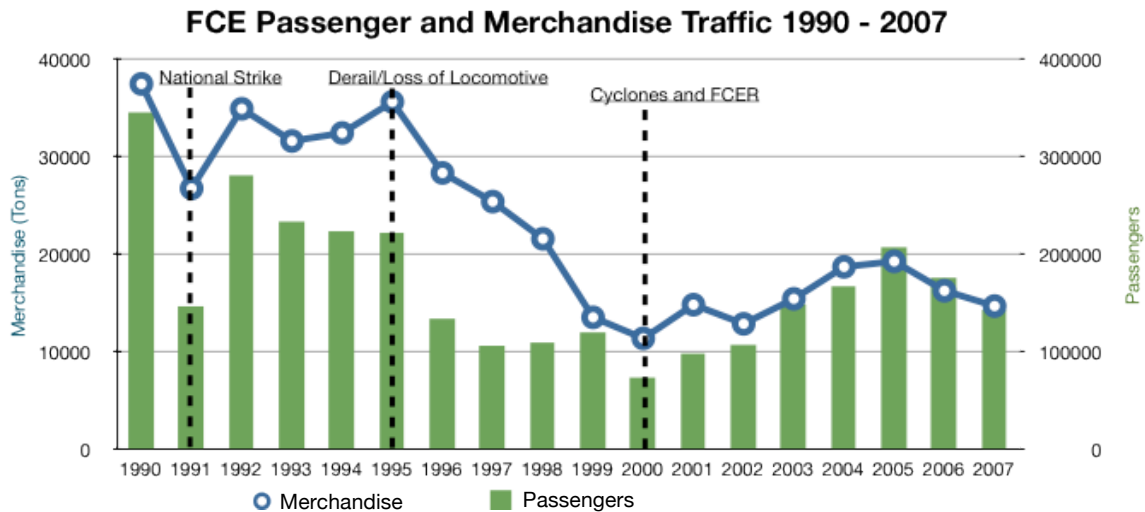


economy, replacing the railway with a Fianarantsoa-Manakara road link would cost the public more money” (ibid.). This recommendation might have spared the railway from imminent closure, but it did not necessarily solve the issue of this line’s poor financial performance and the dependence it had on subsidies for maintenance.

Due to the problems in the larger economy caused by its failed economic policies, the Malagasy government followed the trend of African liberalization in the 1980s and engaged in negotiations with the Bank to obtain monetary assistance through structural adjustment loans (Pryor 1990: 287). The Bank saw the FCE’s financial losses as a significant threat to the budget of the Malagasy Railway or RNCFM (Réseau National des Chemins de Fer Malagasy), which threatened to increase the government’s deficits (World Bank 1979: 13). According to members of the Malagasy delegation, discussions with the Bank became quite heated when the Bank recommended closing the FCE and it became a sticking point in developing a support package (SSI with Informant 2, Fianarantsoa, 24 Jun 2008; SSI with Informant 11, Antananarivo, 18 Jul 2008). Although the Malagasy government successfully resisted the World Bank’s push to close the railway, it ultimately agreed to a loan condition that ensured the government made no further capital investments in the FCE (Freudenberger 2003: 140).

As a result of this disinvestment, the railway continued to deteriorate and lose market share in the 1990s, which proved to be a low-point in the FCE’s history. New road investments and the opening of those highways to large trucks further eroded the railway’s market (Weisema et al. 2001: 29). The FCE became more unreliable, unsafe and susceptible to service disruptions from weather. A strengthening trucking industry ensured that fuel shipments arriving at the port of Manakara were shipped to Fianarantsoa by road even though transporting fuel cost less on the FCE (Godeau 1996: 37; Weisema et al. 2001: 29). The loss of one of the FCE’s three locomotives due to a 1995 derailment only added to the line’s woes (Rakotoarison 1998: 29). The precipitous decline in the FCE’s ridership and merchandise traffic

over this decade, as illustrated in Figure 17, was both a cause and symptom of the railway’s continuing problems.<sup>61</sup>



**Figure 15 FCE passenger and merchandise traffic (1990 to 2007)**

Even though the FCE suffered from cash flow problems and major neglect of its infrastructure, its worth did not go unnoticed. The USAID-funded program Commercial Agricultural Promotion’s (CAP) primary mission of supporting the development of agribusiness in the Fianarantsoa region included a high-profile rural infrastructure rehabilitation project that aimed to lower transportation costs in order to promote agricultural commodities (CAP 1998: 3). The FCE director approached CAP’s regional director with a request for support, making the case that the railway essentially served the same function as roads for the isolated villages along its length. This appeal came at a critical time for the railway. According to the CAP’s regional director, “the trains were basically falling apart on the tracks and the tracks themselves were falling apart” (SSI with HS, Phone interview, 2008). The program agreed to consider the request and commissioned a study of the line, which was the first examination to look beyond the FCE’s fiscal performance and seriously consider the other benefits the railway provided to communities along its length.

<sup>61</sup> Ridership statistics were provided by the FCE administration.

The study affirmed what the FCE director had asserted (Godeau 1996). The railway provided essential service in shipping agricultural and essential household goods, leading CAP to include the FCE in its rural infrastructure program (CAP 1999: 5).

#### **IV. Uniting Civil Society: ADIFCE**

Malagasy public officials and FCE staff had done a noteworthy job of keeping the trains operating in the face of political pressure as well as unremitting technical and financial problems, but CAP recognized that the lack of financial resources outweighed the commitment of the line's existing supporters. Development project staff, local public officials and business leaders who had actively worked with each other and the staff of the FCE to keep the line running reached a consensus that the long-term viability of the railway required that the government of Madagascar privatize it. Railway staff and many people living along the line were cool to this idea (SSI with Informant 1, Fianarantsoa, 23 Jun 2008). Critics raised the concern that passenger service was not the primary concern for most concessionaires (SSI with Informant 2, Fianarantsoa, 24 Jun 2008). As evidence, they pointed to the Northern Railway's long lapse in passenger service despite concession stipulations that it would be maintained. Recognizing the validity of these concerns, the key actors decided to task the TCSO called the *Association des Détenteurs d'Intérêts de la FCE* (ADIFCE)<sup>62</sup> with ensuring the interests of the users and communities would be respected under a privatization scheme, making the line more attractive to potential concessionaires, and stemming false rumors of the consequences of privatization.

Even though members of the public (mostly shop owners, produce collectors, traditional leaders, and village elders) were already involved in trying to protect the FCE, expatriate development workers believed having a formal charter and structure gave these stakeholders legitimacy in the eyes of the other actors involved in the privatization process (SSIs with Informants 7 and 8, Fianarantsoa, 13 Jul 2008). In April 1998, CAP organized a public meeting with key stakeholders to

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<sup>62</sup> Translated into English, ADIFCE means "The Association of Protectors of the Interests of the FCE."

discuss the privatization process that had been discussed for some years and was underway (SSI with Informant 12, Phone interview, 26 Nov 2008). As a result of this meeting, CAP staff proposed creating ADIFCE – a formal CSO with articles of incorporation filed with the Malagasy government (SSI with Informant 23, Fianarantsoa, 25 Sep 2009). Having a formal CSO provided a structure to which IDIs could channel funding that would help pay for a full-time coordinator, community organizer, outreach materials as well as meetings. Initial funding for ADIFCE also came primarily from USAID projects, although efforts were later made to create sustainable funding mechanisms through membership dues and the sale of a tourist guide about the FCE.

External actors played a large role in establishing ADIFCE, which affected the form it took. Although the actual formation of ADIFCE occurred under CAP's successor program, Landscape Development Interventions (LDI), the organization's essential structure derived from the road-user associations model that CAP used to ensure the sustainability of its rural infrastructure investments. CAP staff derived the model for the road users associations by looking at local water user associations in Madagascar as well as rural conservation districts in the United States (SSI with Informant 12, Phone interview, 26 Nov 2008). Clearly ADIFCE was a more ambitious effort than road-users associations that usually comprised one or two villages serving population bases in the hundreds. ADIFCE aimed to represent hundreds of thousands of people from the three ethnicities who lived in dozens of villages along the line's length, plus the populous cities on both ends. While the scope was greater, the intention of CAP's model was an "absolute precondition" to provide funding for its transportation rehabilitation projects, a commitment by beneficiaries and local government for the long-term responsibility of maintaining the infrastructure (CAP 1998: 3). Given that CAP was financing its creation, it had the ability to influence ADIFCE's structure. CAP's creation of local road users associations reflected an adherence to "principles of local responsibility and empowerment" that they viewed as essential to the effective use of their resources and the long-term sustainability of the infrastructure projects (CAP 1998: 3).

ADIFCE's articles of incorporation clearly sought to empower the local population and endow them with a sense of responsibility for the line's soundness. The articles state that a primary objective of ADIFCE includes improving the general quality of service for the FCE's "users and beneficiaries" – those individuals receiving direct or indirect benefits from the railway including farmers, collectors, *Mpanjaka* (traditional leaders or local kings), railway workers, elected officials and veterans from the 1947 rebellion (Focus group with ADIFCE/OPCI representatives, Tolongoina, 21 Sep 2009).<sup>63</sup> Their charter also included three specific objectives organized by time with the most immediate task focusing on supporting the privatization process. In the medium term, they would seek to "defend the interests, develop and influence the path of the FCE." In the long term, they would seek "to establish a participatory system (for 'informing-sensitizing-conscientisation') to ensure the good use and the protection of what the FCE line has already acquired."<sup>xix</sup> Protecting what has already been built and then "acquired" also connotes a sense of ownership. ADIFCE's language subtly seeks to remind people that even though the French may have ordered the railway's construction and used it for their own colonial interests, the line and its social significance had since passed into the hands of the Malagasy people. This transfer of the physical infrastructure, but also the appropriation of the railway's history, unites both financial and cultural appeals.

Even though ADIFCE's initial task was to calm local concerns about privatization, they soon took a more proactive approach to protecting the line. In early 2000, back-to-back cyclones struck Madagascar and caused serious damage to the railway – including 280 landslides along the line that left approximately 150,000 cubic meters of soil on the tracks (Freudenberger and Freudenberger 2002: 189). Moreover, four major washouts left long sections of track suspended in midair (Freudenberger and Freudenberger 2002: 189). ADIFCE members were able to send word to LDI and the FCE administration of the washouts and landslides that cut the line. Individual ADIFCE members also took the initiative of clearing some of the

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<sup>63</sup> ADIFCE's articles of incorporation were filed on 07 June 1999 with the Malagasy government. Any supporter of the FCE could join ADIFCE, but in fact, most members lived along the line.

landslides themselves voluntarily or in some cases helped find fellow villagers willing to clear it for pay (SSI with Informant 12, Phone interview, 26 Nov 2008; Women's focus group, Ranomena, 01 Sep 2009; ANP focus group, Manampatrana, 09 Sep 2009). Finding help did not likely prove too difficult because local ADIFCE representatives in the villages tended to be people who held some sway in the community, such as merchants, collectors and *Mpanjaka*. Still, the FCE remained closed for two months from the cyclonic damage, which raised the price of essential household goods while simultaneously cutting off their usual sources of income.



**Figure 16 Washout along FCE in 2000**

Although the cyclones' wind and rain set the soil in motion, lack of maintenance and human activity greatly increased the line's susceptibility. Specifically, the lack of functioning drainage systems (i.e., culverts) and farmers planting crops too close to the right-of-way contributed to the soil instability around the FCE's tracks.

Coincidentally, the 2000 calamity and resulting halt in train service occurred just as a study began examining broader environmental policy in the forest corridor.<sup>64</sup> The *Projet d'Appui à la Gestion de l'Environnement* (PAGE) study ultimately concluded that without regular train service, farmers would have no choice but to switch from producing tree-based cash crops to a self-sufficiency lifestyle based on *tavy* (slash-

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<sup>64</sup> Given the political sensitivity of the FCE dossier and forest-related environmental issues, LDI and its partners commissioned the PAGE study to provide an impartial evaluation of the questions that were being raised.

and-burn agriculture) that produced rice and manioc for their families (Freudenberger and Freudenberger 2002: 189-190). It projected that 95,000 hectares of deforestation could be avoided by keeping the FCE running (ibid.: 190). The food-security issues combined with the environmental implications of deforesting an area with some of the most threatened fauna and flora species in the world reinforced the importance of paying attention to the FCE's condition. The Bank's position on considering environmental and social impacts had evolved substantially since the 1980s when it had originally called for the line's closure (Fox and Brown 1998: 2; Keck and Sikkink 1998; Ebrahim and Herz 2007: 9-10). While many populations need help with development or environmental issues with the addition of new infrastructure and services, the proponents of the FCE argued that the best way to avert an environmental and social disaster was as clear as keeping what already existed. Armed with the PAGE study's findings that justified rehabilitation funding for the FCE, LDI staff and their consultants approached donor agencies for the creation of the FCE-Rehabilitation project (FCER).

The FCER became a large supporter of ADIFCE and vice versa. FCER provided ADIFCE with funding to support administrative and outreach activities while they both worked to develop a self-sustaining funding source for the TCSO. ADIFCE in turn supported FCER activities by acting as a liaison to local communities. ADIFCE served as the intermediary with villages to implement strategies aimed at protecting the line and to resolve issues related to land tenure next to the line. In November 2000, FCER staff and ADIFCE leaders also helped launch an organization called the *Organisme Public de Coopération Inter-communale (OPCI)* that consisted of mayors from the communities along the FCE (Rarivony 2002: 25). The intention of this inter-jurisdictional entity was to build political support at the local, regional and national level by fostering a spirit of cooperation between the mayors to support the FCE. These mayors, collectively, had more power than the individuals who made up ADIFCE, which is why it was assumed that OPCI could more effectively advocate to national public officials and IDI staff during the rehabilitation and privatization process (ibid.).

In fact, the overall strategy conceived by FCER was to put up a united front to those who had the resources to affect the line's future, whether it was Bank staff or Malagasy ministry officials. This strategy aimed to produce a synergistic effect where each stakeholder would be stronger than if they acted alone. ADIFCE therefore worked with all of the partners involved in the rehabilitation effort and by design there was great overlap among these stakeholders. Interestingly, although ADIFCE occasionally reached out to the national government and participated in joint meetings, they conducted relatively little lobbying of national officials and their contact with IDIs was restricted to FCER-facilitated meetings.<sup>65</sup> One Bank document notes community organization around the effort to rehabilitate the FCE included OPCI and agricultural CSOs, but no reference was made to ADIFCE's existence (World Bank 2002: 43). The ADIFCE's role in this consortium, therefore, was primarily to validate and build support among the local population for the rehabilitation efforts occurring along the line. ADIFCE worked on the front lines and with key actors in the communities along the railway to unify the population behind a common vision of the FCE that would increase its reliability for all users. Empowering Malagasy populations most affected by a potential FCE closure to participate in the rehabilitation process was also seen as an opportunity to sensitize them to the environmental ramifications. The next section discusses the interventions in which ADIFCE played a role to prevent the railway from closing.

## **V. Interventions with, by and for Civil Society**

Rehabilitating the FCE was more complicated than simply finding the money to renew the existing physical infrastructure. The participation and support of villagers

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<sup>65</sup> Samuel Razanamapisa wrote to the minister of public works, transportation and meteorology on 03 October 2006 to express their organization's concerns over the delay in privatizing the railway, which would have led to investment in the FCE. He requested support from the government for maintaining the railway in the meanwhile. He wrote another letter to the new minister of transportation and tourism on 21 March 2007 introducing ADIFCE and other actors while also asking for continued government support for the FCE's rolling stock. The lobbying of government officials at the national level was essentially left to OPCI because, according to ADIFCE's president, it was better if the mayors who represented the population wrote the letters (SSI, Fianarantsoa, Jun 2008).



was essential to protect the physical infrastructure of the line from the effects of the efficient but highly damaging practice of *tavy* that was occurring too close to the right-of-way. Simply prohibiting this activity would not have been enough and would have created major problems with enforcement (if it occurred at all). Making inroads into these dispersed communities and changing ingrained cultural practices that were harming the railway was a demanding task. Having local leaders advocate on behalf of the interventions gave these changes more legitimacy in the eyes of the population and created support that had surprising results.

## 1. The Heritage Campaign

ADIFCE was most actively involved in a major outreach effort called the “Heritage Campaign,” which aimed to protect the railway. When FCER staff initiated a participatory research process with communities along the railway to better understand the implications of a railway closure, their Malagasy and expatriate staff began to realize that heritage was a key motivation for rural people to protect the railway because it conferred a sense of ownership. Portraying the FCE as a heritage started after a mayor along the line made the observation during a post-cyclone meeting that the FCE needed to be cared for as a heritage because their ancestors had sacrificed so much to build it (SSI with Informant 26, Fianarantsoa, 10 Oct 2009). This sentiment evolved into an oft-repeated slogan, *Harovy ny Lalamby fa Lovantsika* (“Save the train because it’s our heritage”), which ADIFCE placed at the center of their communications campaign to unite the beneficiaries of the train service (Rarivony 2002: 25).<sup>66</sup>

The FCE’s strong sense of heritage is inseparable from its history – particularly the forced labor program that facilitated its creation: the *Service de la Main d’Oeuvre des Travaux d’Intérêt Général* (SMOTIG). Given the difficulty in recruiting voluntary labor for large public works projects, the colonial administration passed a law

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<sup>66</sup> Variants of this slogan exist, such as *Lovantsika ny Lalamby ka Arovy* (“The train is our heritage so save it”).

allowing it to requisition Malagasy men who were liable to serve in the French military but who were never actually drafted (Thompson and Adloff 1965: 446). Rather than accept the label of forced labor subsequently raised by critics upon SMOTIG's creation, Madagascar's Governor General sought to reframe it as "obligatory labor" just like military service (Olivier 1931: 103). Colonial officials sought to reinforce this portrayal of the program as military service by requiring these "pioneers" to wear standard-issue clothing, undergo military training, and conduct drills during their two to three years of service to the colony. Their primary activity, though, was manual labor.

The French would most likely never have built the FCE without SMOTIG (Thompson and Adloff 1965: 446), but the FCE's construction came at a high cost to the local population and this made it such a memorable program – even among younger members of Malagasy society (Sharp 2003: 82). French efforts to allay international concerns about the effects of using this forced labor program actually increased Malagasy dislike by extending the period of service to at least two years in an atmosphere of intense surveillance, abuse and discipline (Sharp 2003: 80; Sodikoff 2005: 419). Deaths during service were not uncommon and the FCE had the highest of any of the public works projects (Olivier 1928: 2; SMOTIG 1930: 41; Coursin 1930: 61 in Sodikoff 2005: 419). The absence of any references to repatriation and the significant costs it would have incurred suggest that the French did not return the bodies of fallen workers to their home villages where they could be put to rest in family tombs (Kolozsvari 2012: 16). SMOTIG effectively made the FCE into both a symbol of workers' suffering and a makeshift tomb for those workers whose bodies were not recovered (ibid.: 4).

So while SMOTIG workers built a tangible structure that has endured many decades of use and connected people physically, key stakeholders recognized that these men's personal sacrifice also left behind an intangible heritage that could unite the population behind the FCE. Both project staff and villagers stated that the sentiment had already existed along the line before FCER helped improve it (SSI with: Informants 7 and 8, Fianarantsoa, 13 Jul 2008; SSI with Informant 23,

Fianarantsoa, 25 Sep 2009; SSI with Informant 26, Fianarantsoa, 10 Oct 2009; Elders focus group, Ranomena, 30 Aug 2009; SMOTIG sons focus group, Ambila, 12 Sep 2009). Railway supporters believed that strengthening people's sense of ownership over the line would make it more likely that they would protect it for themselves and future generations. FCE supporters invoked the memory of these workers to unite villagers behind efforts to protect and rehabilitate the railway by asserting that the railway was everyone's heritage.

The heritage campaign proved critical to building a sense of ownership and solidarity along the line – even leading to the local christening of the FCE as the “Heritage Railway.” This “*sensibilisation*” or sensitizing effort was designed to incite the population to maintain and protect the railway because they were the ones who benefited from it.<sup>67</sup> FCER director Karen Freudenberger noted, “we did not create that ownership, but we identified that it existed, figured out how to tap into the amorphous, disparate sentiment that was floating around out there, and then packaged it in a way that made it a positive ‘usable’ force in the community” (Correspondence with Karen Freudenberger, 28 Jul 2009). ADIFCE's article of incorporation referring to the “acquired” nature of the FCE seems to confirm this. ADIFCE participated in the effort to inform the population about the meaning behind the Heritage Campaign and slogan that encapsulated the railway's cultural significance and value.

ADIFCE validated the idea the railway was a heritage in its communications and participation in public meetings. They also helped propagate this message through its outreach (e.g., newsletters, meetings, individual contacts, etc.). They even adopted this slogan as their own to place on their letterhead and newsletters. The slogan was also written on wood signs along the right-of-way and posted at some stations' notice boards. This message was carried in various mediums, including by a theatrical group that was hired by FCER to perform a puppet show at each station that explained why “the FCE is ours” (Freudenberger 2000: 7). Every year, the FCE

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<sup>67</sup> *Sensibilisation* is a French word that most closely translates into “to sensitize.”

staff, ADIFCE and local Malagasy hold a ceremony at a monument at a famous point on the railway recognizing the sacrifice of SMOTIG workers and the victims of 1947 (SSI with Informant 1, Fianarantsoa, 27 Aug 2009). Informants consistently link ADIFCE with the Heritage Campaign because its local leaders and general members were on the front lines of the effort.

When asked about ADIFCE, the ownership of the FCE, or the importance of the railway line, informants readily recalled variations of the heritage slogan. Even some IDI staff recalled the Heritage Campaign's slogan or used the key word heritage when discussing the railway (SSI with Informant 10, Antananarivo, 16 Jul 2008; SSI with Informant 32, Phone interview, 22 Apr 2011). This idea of the line being a heritage also made it into official reports about the FCE intended for national and international audiences (Weisema et al. 2001: 26). The broad appeal of the slogan, and the abstention of specifying from whom it is a heritage, arguably makes it more effective. Some Malagasy villagers believed that the FCE was a heritage from the French who ordered it built, while other members of the general public said it was from the pioneers who actually built it. Some informants from the general public thought it was a heritage from both (SMOTIG Sons focus group, Ambila, 12 Sep 2009).

Today, descendants of SMOTIG workers continue to state that letting the railway close would be disrespectful to the memory of their ancestors who reportedly suffered and sacrificed so much. The concept of "sacrifice" often surfaces in discussions about SMOTIG and the FCE and workers' suffering has proved memorable for subsequent generations born long after the FCE was finished. FCER Director Karen Freudenberger noted, "what villagers told us during the [participatory research process] was in so many cases that their ancestors had died building the railway and that to let the railway die would be sacrilegious to the memory of those who had died in its construction" (Correspondence with Karen Freudenberger, 28 Jul 2009). Ancestors in Malagasy culture are viewed as always

ever-present (Dahl 1999: 26-27).<sup>68</sup> Informants were united in their belief that they had a duty to make sure that this inheritance or national patrimony would not close.

Whereas ownership questions for roads and who should maintain them often arise (Porter 2002: 293-297), a sense of ownership manifested itself not only in planned interventions, but also through more spontaneous efforts such as the clearing tracks of dirt and branches after storms or by pushing the broken-down locomotive over 100 kilometers back to Fianarantsoa (SSI with Informant 1, Fianarantsoa, 23 Jun 2008 and 27 Aug 2009; Elders focus group, Ambila, 12 Sep 2009; ADIFCE focus group, Tolongoina, 21 Sep 2009). It is conceivable that the role of the slogan and outreach effort brought the significance of FCE's history to the attention of many younger Malagasy and rekindled the memory of village elders. As Simon and Ashley have proposed, "reduced to its simplest form, heritage refers to the contemporary activities through which the past comes to matter in the present...Within such activities, judgments are made as to which particular aspects of the past are worthy of preservation and are of potential significance for social memory" (Simon and Ashley 2010: 247). The FCE is an example of how CSOs can use this sense of heritage to help spur even younger generations to support development and maintenance efforts.

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<sup>68</sup> Also see chapter 7 in Kottak 1980 for a discussion about the enduring role afforded to deceased ancestors in the Betsileo culture, which is one of the three principal ethnicities along the FCE.



**Figure 17 Pushing the FCE's broken-down locomotive**

## **2. Effective Laws in a Rural Setting: The *Dinabe* and *Dina-Paritra***

Building a sense of ownership and solidarity along the railway corridor set the stage for an important intervention affecting all of the communities. Whereas some villagers expended enormous energy to keep the FCE running, others needed more encouragement to respect the railway. As mentioned earlier, some farmers used *tavy* and planted annual crops too close to the railway, which increased the chances that landslides and washouts would cut the line. The FCE owns approximately 50 meters of land on each side of the tracks. Some of this land was rented out to farmers, but some of the land was being cultivated by squatters (Hengchaovanich and Freudenberger 2003: 5). Unité FCE, a consultancy team of economic, social and technical experts worked with ADIFCE to identify 85 families along the line who were causing damage to the railway tracks from their agricultural production (Freudenberger 2000: 7). For both practical and ethical reasons, though, the FCE administration could not prohibit farmers from cultivating on this land and in ways that met their immediate food security needs (Hengchaovanich and Freudenberger 2003: 5).

The people trying to rehabilitate the FCE needed to find a way to halt *tavy* in rural areas where the central governments' police powers were relatively weak. ADIFCE played a critical role in getting these farmers to change land use practices by helping institute a traditional Malagasy law known as a *dina*. In a country that is known for the difficulty of enforcing laws handed down from the national government, one author states, "in practice, a social pact [like the *dina*] is a force of regulation between its members" (Rarivony 2002: 25). The *dinabe*, which was the overarching *dina* for the entire FCE corridor, had various articles dictating that users respect the line such as by cleaning around the stations, keeping ditches free from weeds and mud, and clearing drainage structures of debris when full (Dennison et al. 2002: 25; SSI with Informant 17, Manampatrana, 09 Sep 2009). However, the *dinabe* had the "central intention of halting all crop production within two meters of the tracks and bridges" to protect the drainage infrastructure (Freudenberger 2000: 7). The *dinabe* also had the goal of stopping all *tavy* in the 50-meter band on either side of the tracks to halt erosion (Rarivony 2002: 25). Implementing the *dinabe* necessitated adopting more specific *dina-paritra* in the three geographical zones along the line. The *dina-paritra* was consistent with the larger *dinabe*, but customized it to the particular area to make its implementation more effective.

Key FCE supporters, including ADIFCE leaders, drew upon and reinforced the idea that the FCE was a heritage in their effort to institute the *dinabe*. In order to implement the *dinabe*, they organized a traditional ritual sacrifice called *joro* (FCER 2001: 2, 4). *Joro* is a "ceremony that is held to honor the ancestors and give thanks for their blessing and assistance" (Sharp 1993: 167). According to Dahl,

If a project...is to succeed, the *fady* [taboo] has to be lifted *before* the enterprise starts. This is often done with the help of *joro* (invocation and eventually sacrifice). A cow or calf is slaughtered, and the traditional healer performs rites

and offers prayers to the ancestors to take away all sorts of *fady*. It is a kind of contractual agreement with the ancestors. (Dahl 1999: 65).<sup>69</sup>

Important elders performed the *joro* for the *dinabe* and this was a very public act recognizing the connection between the FCE and Malagasy ancestors. Practicing *tavy*, thereby, became synonymous with dishonoring the ancestors and risked the condemnation by local officials, respected elders and other members of the community.

ADIFCE maintained open communications with the communities about the progress of the rehabilitation and helped formalize the overarching *dinabe* for the corridor by organizing the appropriate cultural rituals and sacrifices. Specifically, ADIFCE participated in the effort to implement the *dinabe* by getting local leaders and elected officials to back the *dina-paritra* and ensure farmers abided by the terms. One *Mpanjaka* described the *dinabe* as the “tool of the ADIFCE’s objective to protect the railway” (SSI with Informant 17, Manampatrana, 09 Sep 2009). They also participated in formalizing the agreement with the *joro*.

The effectiveness of the *dinabe* when measured in reducing *tavy* is mixed as results varied by location and as slash-and-burn agriculture increases. Some communes applied it more stringently than others, with a few viewing the *dina-paritra* as really fitting the situation (SSI with Informant 1, Fianarantsoa, 03 Sep 2009). ADIFCE members would also report instances of *tavy* to OPCI, which would then take action. Yet a key impact of instituting the *dinabe* was sensitizing Malagasy to the environmental impact of *tavy*. During conversations about the *dinabe* and other environmental efforts, Malagasy villagers volunteered their knowledge of the environmental ramifications rampant deforestation would have on their community, including on the forest’s hydrology so important for their long-term cultivation needs (Women’s Focus Group, Sahasinaka, 17 Sep 2009; Young Men’s Focus Group, Tolongoina, 23 Sep 2009).

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<sup>69</sup> Feeley-Harnik notes, “the elder male members of lineages are formally charged with interceding between the living and their dead ancestors by means of the ritual known as *joro*” (Feeley-Harnik 1984: 3).



### 3. Vetiver Planting Program

Halting the practice of *tavy* next to the right-of-way by having them respect the *dina* was not enough to thwart the immediate threat future storms posed to the line. Even if farmers immediately halted production on existing fields next to the railway, the lack of deep-rooted vegetation and poor drainage meant the hillsides adjacent to the railway remained vulnerable to erosion. Development experts found a solution to reinforce the hillsides in the plant called vetiver (*Chrysopogon zizanioides*) – a deep-rooted, non-invasive plant that can stabilize even steep hillsides. CAP had already used vetiver in its rural roads projects and a former director proposed this solution to FCER staff for its ability to prevent erosion along an already tenuous line (CAP 1999: 8; Hengchaovanich and Freudenberger 2003: 3).

As noted in the implementation of the *dina*, changing agricultural practices along the line was as difficult as it was essential. Many rural families were living in a state of food insecurity and were producing annual food crops on the land next to the FCE both for their own consumption and to generate revenue. Getting farmers to plant vetiver seemingly ran counter to the economic and food security realities facing households practicing *tavy* on the line. FCER devised a farmland stabilization model, though, that would allow smallholders to use intercropping techniques that incorporated vetiver on some of the most vulnerable hillsides (Hengchaovanich and Freudenberger 2003: 9-10). Rows of vetiver could stabilize the hillsides while still providing farmers with space to grow annual crops for their immediate needs and perennial tree-based crops for long-term economic security (ibid.: 6). This provided farmers with security in two ways. It decreased the likelihood they would lose their crops due to erosion on their own plot. It also meant that they would have more confidence that others' practices would not cause a line-closing landslide.

Finding an adequate amount of vetiver for a reasonable price posed a challenge because availability was so low at local nurseries (ibid.: 11). As a way to bring down the costs and increase supply, FCER devised a plan to loan farmers vetiver slips, which they would pay back with vetiver slips to the project – thereby allowing new participating farmers access to reasonably priced vetiver (ibid.: 10). Eventually, this

model dropped the price per tuft of 25 slips from roughly \$4 down to \$0.28, making it affordable to farmers to finance themselves (ibid.: 11).

Getting skeptical farmers interested in the first place, though, took some effort on the part of Unité FCE. ADIFCE members set to work encouraging farmers along the line to participate in the vetiver project by extolling the plant's benefits and the results seen in other areas (Women's focus group, Ranomena, 01 Sep 2009; SSI with Informant 21, Sahasinaka, 18 Sep 2009). This outreach dovetailed well with their push to get these farmers to respect the *dina*. Meanwhile, the FCE administration formalized the relationship with many of the farmers through permits that provided some rent to the railway and long-term tenure to the farmers – many of whom were essentially squatting on the land (Hengchaovanich and Freudenberger 2003: 10). This agreement prohibited growing rice and manioc, but allowed smallholders to benefit from trees that they planted.<sup>70</sup> FCER also provided perennial fruit trees for free to the initial participants as an incentive to partake in the project (ibid.: 11).

Smallholders became increasingly interested in this intervention when they saw their neighbors' fields stabilize and improve in fertility (ibid.). Some farmers were even able to generate income by selling plants after meeting the commitments of their loan (ibid.: 10). Starting out with just 90 farmers, the program soon had a waiting list. In just three years, over 600 peasants had participated in growing and planting roughly three million vetiver plants with the assistance of Unité FCE (Madagascar-Tribune 2003). Farmers who planted vetiver on their lands also erected a colorful panel facing the right-of-way that displayed their names and the railway's slogan to passing trains (Hengchaovanich and Freudenberger 2003: 11). These panels were a source of pride and a sign of solidarity with the rehabilitation work happening all along the line. The results of these efforts were demonstrated in 2004 when a major cyclone hit this area twice and closed the railway for only one week due to landslides that deposited just 300 to 400 cubic meters – a major

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<sup>70</sup> The FCE had previously only tended to intervene in squatting cases on its land when villagers planted trees because it had traditionally been perceived as a way to transfer ownership (Hengchaovanich and Freudenberger 2003: 5).

improvement over the 150,000 cubic meters that needed to be cleared over two months in 2000 (Payet 2008: 5).



**Figure 18 Farmer's vetiver sign with heritage slogan**

These three strategies proved valuable to protecting the FCE's infrastructure, and they reinforced the sense of pride and shared ownership of the line that already existed. In addition to halting the erosion that threatened the line during each storm, the solidarity that ADIFCE and its partners helped foster had a very real effect that potentially impacted the future of the line more than the other three actions. Specifically, it facilitated the creation of another TCSO dedicated to protecting the FCE's physical infrastructure during a period of civil unrest – thereby ensuring that train service would not be cut.

## **VI. Unintended Response and Unpredictable Events: the Rise of Civil Society**

As progress continued in the post-cyclone recovery effort, a political storm was also gathering. The end of 2001 in Madagascar was a turbulent time that culminated with a hotly contested presidential election between the mayor of the capital

Antananarivo, Marc Ravalomanana, and incumbent president, Didier Ratsiraka. The upheaval started with political rallies and strikes contesting the official voting results awarding a run-off election to Ratsiraka instead of an outright victory to Ravalomanana. Political tensions escalated further when Ravalomanana declared himself winner and his supporters swore him in as the new president in February 2002. In an effort to undermine support in Ravalomanana's power base, Antananarivo, supporters of Ratsiraka blockaded the national routes to Antananarivo and Fianarantsoa, and also halted service on the Northern Railway connecting the capital and the main port in Toamasina. This blockade cut off the two major cities of the Madagascar's high plateau from the fuel normally imported from Toamasina as well as the salt from the Port of Toliara that is so vital for human health. This posed a grave threat to the wellbeing of the central highlands' populations.



**Figure 19 Roadblocks halted traffic from Antananarivo to the Port of Toamasina<sup>71</sup>**

An electoral decision favoring Ravalomanana in April 2002 resulted in some Ratsiraka supporters making a decision to declare a civil war (Tiersonnier 2004: 93). In order to maintain their blockade of these two cities, non-uniformed militants loyal to Ratsiraka began to bomb the road bridges (ibid.: 92) – ultimately sabotaging 13 bridges (WGPCD 2002). This included a bridge on the road from Manakara to

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<sup>71</sup> This cartoon was clipped from an unknown newspaper and found in the Freudenberger's archives.



**Figure 20 and Figure 21 Sabotaged bridges halted the transport of fuel and other essentials to highland cities**

Fianarantsoa that had been serving as the only link bringing fuel to the highland (SSIs with Informants 7, 8 and 25, Fianarantsoa, 13 Jul 2008 and 06 Oct 2009). The bombing of the Fatihita Bridge on the national road between Fianarantsoa and Antananarivo, though, awoke the concern of the people living along the FCE (SSI with Informant 18, Manampatrana, 07 Sep 2009; ANP focus groups, Ranomena, Manampatrana and Sahasinaka, 29 Aug 2009, 09 Sep 2009 and 17 Sep 2009). One observer commented on the crisis, “the comedy turned into a tragedy when the bridges were destroyed and the roadblocks that asphyxiated the capital ruined the economy of the country and the lives of so many citizens” (Tiersonnier 2004: 105).

With all major roads serving Madagascar’s high plateau out of commission, the FCE started playing a critical role in supplying Fianarantsoa with fuel and salt, much of which then went to the capital (SSIs with Informants 7 and 8, and 25; Fianarantsoa, 13 Jul 2008 and 06 Oct 2009). This also meant that the railway became a higher-profile target for saboteurs seeking to cut off the only remaining way to get fuel and other supplies to these cities. A mayor who was aligned with Ratsirika’s party but was actively involved in OPCI and the rehabilitation project warned other actors along the line that some of his party’s militants planned to attack the FCE next (SSIs with Informants 7 and 8, Fianarantsoa, 13 Jul 2008; ANP focus group, Sahasinaka, 17 Sep 2009). Railways are soft targets, and one only need look at the armed conflicts that have closed or interrupted railway links in Angola, Côte d’Ivoire, Eritrea, Ethiopia, Mozambique and the Republic of Congo to see the

very real threat posed to the FCE (Bullock and Gwilliam 2010: 229, 232). The FCE's 56 tunnels and 40 bridges spread out over 163 kilometers made these vital infrastructure points especially vulnerable.

Realizing the danger posed to the FCE, key Malagasy actors within ADIFCE, OPCI and the FCE encouraged the “raising” of the *Andrimasom Pokonolona* (ANP)—meaning “the people who watch”—consisting of the population living along the FCE.<sup>72</sup> They organized men from each village into ANP groups so they could protect the FCE's infrastructure from acts of sabotage (Rarivony 2002: 26). The number of “community guards” on duty at any time ranged anywhere from a handful to a dozen per station. These men camped out all night along the FCE's right-of-way, seven days a week for up to four months at some locations. Some of these villagers participated voluntarily while others were paid small *per diem* amounts.<sup>73</sup> Village leaders (mayors, *Mpanjaka* and elders) sometimes appointed men as it was considered both a hardship and a duty to their community and the country (ANP focus group, Manampatrana, 09 Sep 2009).<sup>74</sup> Although these groups received some resources from foreign aid workers via ADIFCE and OPCI representatives, the communities raised most of the resources on their own to support the men who protected this vital infrastructure (ANP focus group, Manampatrana, 09 Sep 2009; ANP focus group, Sahasinaka, 17 Sep 2009).

During the day, men from ANP would keep an eye out for any strangers and would try to find out what business they had in their town (ANP focus group, Manampatrana, 09 Sep 2009). At night, the tone became more menacing. Armed

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<sup>72</sup> Multiple informants stated that this group existed before the 2002 crisis and was not specific to the FCE (ANP focus groups, Manampatrana and Tolongoina, 09 Sep 2009 and 21 Sep 2009). It could be argued that the ANP is the equivalent of a neighborhood watch group or even militia rather than a true TCSO. Yet in the context of the FCE, it would seem to fit the classification of a TCSO because it was aimed at protecting on the FCE's infrastructure and was both member-serving and in the public interest. Some informants say that it still exists for the purpose of preventing theft of railway materials.

<sup>73</sup> These men reportedly used this money, which was a few hundred Ariary, to pay for coffee to stay up at night (ANP focus group, Sahasinaka, 17 Sep 2009).

<sup>74</sup> Women in one village pointed out that they played a supporting role in ANP by providing support to the men (Women's focus group, Ranomena, 01 Sep 2009).

only with spears, knives and locally made axes, these men recognized that this was a dangerous duty because the saboteurs would likely come equipped with firearms (ANP focus group, Manampatrana, 09 Sep 2009). In Tolongoina, parents would tell the young men there to be careful before taking up their watch (ANP focus group, Tolongoina, 21 Sep 2009). At the high profile Sahasinaka Viaduct, these men lit campfires to watch the area, but stayed out of the light themselves for fear of being shot (ANP focus group, Sahasinaka, 17 Sep 2009).

The men who participated in ANP gave differing reasons for taking these risks. In every ANP focus group I interviewed, the men broached the idea that the FCE was a heritage that needed protection.<sup>75</sup> When asked if they realized the danger that awaited them if armed saboteurs came to blow up the key Sahasinaka Viaduct, one informant stated, “it would be worth it to die for this patrimony” (ANP focus group, Sahasinaka, 17 Sep 2009). Protecting national unity and their livelihoods also came up in every ANP focus group. *Mpanjaka* in Sahasinaka also agreed to support the ANP near the viaduct to help prevent the crisis from turning into an ethnic conflict, which they were told was a goal of those trying to attack the FCE (ANP focus group, Sahasinaka, 17 Sep 2009).

Although some informants downplayed the possibility of ethnic conflict by claiming that they protected the FCE for the nation, other informants expressed opinions that indicate differences could have become more pronounced. For example, one member of ANP disagreed with a comrade’s claim that they had protected the railway for the nation: “if it was for the nation, then the people who come to bomb are also from the nation, so it is not specific enough” (ANP focus group, Tolongoina, 21 Sep 2009). Although making a distinction based on politics or even geography may have been possible, these differences in Madagascar tend to be linked with ethnicity. In reference to geography and ethnicity, Covell describes Madagascar “not an island, but an archipelago” (Covell 1987: 9). Evers states that an

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<sup>75</sup> In the Manampatrana ANP, they even included heritage in the category of national unity (ANP focus group, Manampatrana, 09 Sep 2009).

outsider would initially learn in casual conversation that everyone is “Malagasy” but that there are also eighteen ethnic groups – identities that she suggests “owe their distinguishing features more to the hand of bureaucrats than to that of nature” (Evers 2002: 12). Regardless of how they developed, ethnicity is an issue for some Malagasy. For example, a feeling exists among some Betsileo that the Merina who hold power in Antananarivo (as well as many high-level government positions) are threatened by them and, as a result, want to keep Fianarantsoa underdeveloped (SSI with Informant 25, Fianarantsoa, 06 Oct 2009).

Fortunately, social solidarity was particularly high along the FCE at this time. A village leader observed that the rehabilitation phase of the FCE was the first time since the end of the colonial period that, in a region with three ethnicities that did not always live harmoniously together, all the community leaders along the line were working together (Madagascar-Tribune 2003). One expatriate development expert noted that a general guiding principle for the rehabilitation process and during the crisis was that one could be “as political as you want, but you have to support the FCE” (SSI with Informant 8, Fianarantsoa, 13 Jul 2008). This demonstration of unity, especially during a political crisis, was no small feat. The elevation of passions during this time among political leaders and activists representing both major parties, as well as independent parties, would have potentially provided fodder for partisans of either party to make the FCE a political wedge to gain political support.

Ultimately, no confirmed confrontations or attacks occurred on the FCE before the presidential election was settled and peace returned to Madagascar. Yet these men emphasize the value of deterrence, by saying those saboteurs who might have wanted to harm the FCE’s infrastructure were well informed about the ANP’s presence through media and word-of-mouth communication (SSI with Informant 18, Manampatrana, 07 Sep 2009; ANP focus group, Manampatrana, 09 Sep 2009). Potential concessionaires bidding on the FCE eventually heard of this show of solidarity. Already, they liked that the FCE was a short line that could be more readily controlled given the difficulty in protecting infrastructure spread over large



distances from theft (SSI with Informant 31, Phone interview, 15 Apr 2011). Yet it was the demonstration of community involvement that got their attention and the commitment of people to put themselves in harm's way that convinced the potential concessionaires of the community's commitment to protect the infrastructure (i.e., their investment).

Perhaps the most surprising result of the crisis was that one of the most unreliable pieces of infrastructure in the country—almost written off a number of times as not worth the cost of operating—averted a serious humanitarian crisis for much of the population and played an important role in changing the country's political trajectory. Communities along the corridor, which had already been working in solidarity to protect their livelihoods, met the threat posed to the FCE with resolve. It would not have been possible without all of the efforts invested by the key stakeholders, including ADIFCE, in unifying the population behind the railway. Informants observed that public support for the FCE had never been higher than during the crisis (SSIs with Informants 6, 7 and 8, Fianarantsoa, July 2008). The crisis tested their mettle, and they found they persevered without almost any assistance from expatriate development workers and donor institutions.

## **VII. Conclusion and Critical Reflection**

The interventions to which ADIFCE contributed were largely successful in the short-term and had some lasting effects. The Heritage Campaign fostered a sense of ownership that has led villagers to safeguard the FCE when necessary. Informants state that ADIFCE's effectiveness also revealed itself in the reduction of landslides, number of farmers planting vetiver, the clearing of landslides after cyclones and the raising of the ANP.

Despite the successes of the interventions in which ADIFCE participated, the role of a TCSO like ADIFCE should not be overestimated. Without the financial assistance of donors and the personal commitment of staff working at the various development projects, it is conceivable that the FCE would not have reopened following the 2000

cyclones. At the very least, the periods where it has been closed would have been longer without the interventions financed by FCER. In addition, the ability of LDI and FCER to frame the FCE's environmental benefits for IDIs like the Bank helped neutralize what had been staunch resistance to intervention on the line's behalf. ADIFCE was closely linked with the foreign aid organizations and their projects, with many informants living along the line only becoming aware of the TCSO after FCER's creation.

A key player in the rehabilitation effort candidly stated that ADIFCE was essentially a "front" for the key actors from civil society who were already backing the railway.<sup>76</sup> This could be perceived as a harsh critique if ADIFCE had been working against the interests and will of the communities it purported to represent. Yet the key actors and informants from the general public who I spoke with along the line said that ADIFCE represented the consensus along the line. So rather than it being a weakness, organizing key players like merchants under the banner of an organization presented advantages over more typical *ad hoc* movements. This included lending legitimacy to the views of civil society so they could not be readily dismissed as the opinions of a few individuals whose own self-interest would be served with little consideration of the public interest. It also created a structure to channel external aid money to civil society so they could advocate for their position. ADIFCE contributed to the sense of solidarity and ownership along the line through its newsletters and outreach. This facilitated action on the part of the general population, who came to understand that it was, at least in part, their responsibility to keep the trains running.

The work by ADIFCE and the USAID-funded development projects to build ownership and solidarity for the FCE undoubtedly played a large part in the rise of ANP during the 2002 crisis. The ability to keep the train running very likely affected the outcome of Ravalomanana coming to power, or at least in reducing the duration of the crisis because of the ability to ship essential products inland. Yet this effect

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<sup>76</sup> I treat this comment as confidential.

was not planned, nor could FCE supporters like ADIFCE have foreseen this impact. As Ferguson notes, “if unintended effects of a project end up having political uses, even seeming to be ‘instruments’ of some larger political deployment, this is not any kind of conspiracy; it really does just happen to be the way things work out” (Ferguson 1994: 256). Certainly the political use of keeping the FCE operational was quite high, but it is ironic that solidarity at the local level trumped the dangerous political gamesmanship occurring at that time. Even today, ADIFCE and ANP members are confident that the population would rally if necessary.

Despite the benefits it provided, the inactivity of ADIFCE since 2007 reveals many of its weaknesses. Informants repeatedly stated that ADIFCE is “sleeping” or “on standby” since the failed privatization process and the rehabilitation efforts ceased (ADIFCE focus group, Tolongoina, 21 Sep 2009). This has had tangible impacts, including weakening the *dinabe* and increasing *tavy* along the line.

One reason for its inactivity is the dependency on external funding for its operations. Although ADIFCE collected membership dues between 1,000 and 4,000 Ariary (\$0.25 to \$2.00) per year from around 100 active members (SSI with Informant 2, Fianarantsoa, 24 Jun 2008; ADIFCE focus group, Tolongoina, 21 Sep 2009), and relied primarily upon the various USAID-funded groups (i.e., CAP, LDI, FCER, then ERI) that worked on the FCE dossier (LDI 2000: 6). LDI and FCER sought to break this dependency by developing a financial model that would sustain ADIFCE through just membership dues and the proceeds of a tourist brochure about the FCE sold at local hotels. Due to an expressed lack of interest because it reportedly provided less revenue than the cost of collection, the tourist guide intervention failed to produce a sustainable revenue stream for the organization and the donor projects ultimately refused to fund a follow-up printing even when eventually requested by ADIFCE’s leadership (SSIs with Informants 7 and 8, Fianarantsoa, 13 Jul 2008). A feeling of increasing ineffectuality after the privatization failure, perhaps combined with issues of transparency in the financial operations of the organization, reduced its members’ confidence in the organization to the point where they stopped paying their dues (ibid.).

ADIFCE's structure exacerbated the weaknesses of its financial model. In order to make decisions and to choose leaders, ADIFCE would have had to organize a general meeting that brought together its member-representatives from all the communities (SSIs with Informants 7 and 8, Fianarantsoa, 13 Jul 2008).<sup>77</sup> These meetings occurred in Fianarantsoa, Manampatrana or Manakara, which means members would have to travel a fair distance to participate. Recognizing the hardship caused to individual members, ADIFCE paid for the transportation costs as well as a per diem for the attendees' lodging and food (SSI with Informant 19, Ambila, 13 Sep 2009). Since its members were spread over a large distance along the line, this made holding meetings a very expensive undertaking. Even though ADIFCE's president wanted to step down after his mandate ended, by default he remained in his position because a general meeting could not happen after they ran out of money. With his recent death, it is unclear who will fill this leadership vacuum or if ADIFCE is even capable of existing anymore. Had members been permitted to vote on issues by proxy, the costs of running the organization would have been substantially reduced.

Although a handful of informants claimed ADIFCE was a grassroots organization, others stated the opposite (SSIs with Informants 2, 7, 8, and 19, Fianarantsoa and Ambila, 24 Jun 2008, 13 Jul 2008 and 13 Sep 2009). ADIFCE's relationship with the railway's administration helped maintain open communication that could resolve issues the local population had with the administration as well as act as a watchdog for the railway's financial and administrative activities (Freudenberger 2000: 7; ADIFCE focus group, Tolongoina, 21 Sep 2009). When it communicated complaints to the FCE administration, members viewed it as bottom-up, but more often it acted in a top-down fashion to sensitize the local population to the environmental and practical implications of their farming practices (ADIFCE focus group, Tolongoina, 21 Sep 2009). The overwhelming bulk of their energy focused inward on the

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<sup>77</sup> Each station had at least two local ADIFCE representatives, but there are other *fokontany* (villages) next to the line that may have had ADIFCE members important enough to be invited to attend the meeting.

population living along the line with the aim of influencing their mindset and behavior. This supports the assertion that ADIFCE was a highly top-down organization that never lived up to its goal of lobbying national political leaders.

Still, this group of railroad stakeholders was viewed as a critically important element of the strategy due to its public lobbying role. (Freudenberger 2000: 7). LDI sought, in fact, to strengthen ADIFCE's lobbying function (ibid.; LDI 2000: 8). With the exception of a few letters written by the organization's president to government ministers, though, ADIFCE seems to have made little effort to lobby for support from the national government or IDIs.<sup>78</sup> For example, no letter writing campaign was ever organized to gain support from the national government – a strategy successfully used in the case of the TAZARA railway to preserve service to certain stations (Monson 2006: 116). Unsurprisingly, almost no IDI staff members or even national public officials recall ADIFCE. One key player in the rehabilitation process lamented that no organization, including OPCI and ADIFCE, argued on behalf of the FCE in the capital (SSI with Informant 9, Antananarivo, 15 Jul 2008).

The question of lobbying the government has become more urgent since the FCE rehabilitation effort ceased and as the population along the railway finds themselves in an increasingly precarious position. When asked what they would do if the FCE were to shut down, villagers at one station said that they would ask visitors to send a request to the government to get the trains running again (Women's Focus Group, Ranomena, 01 Sep 2009). This effort would have the potential of being more effective if coordinated with the other villagers living along the line so they could speak with a unified voice. This united front would also bolster attempts to lobby public officials and experts as to the value of the railway. Moreover, it would be ideal to avoid any shutdown by having a constant presence in the political arena that

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<sup>78</sup> Samuel Razanamapisa wrote to the minister of public works, transportation and meteorology on 03 October 2006 to express their organization's concerns over the delay in privatizing the railway, which would have led to investment in the FCE. He requested support from the government for maintaining the railway in the meanwhile. He wrote another letter to the new minister of transportation and tourism on 21 March 2007 introducing ADIFCE and other actors while also asking for continued government support for the FCE's rolling stock.

generates resources for basic operations, maintenance and repairs. Clearly, lobbying directly and proactively is a source of power that can bring civil society into the decision-making process earlier, which will be key to having the population accept any major decision about the railway – one that will ultimately need to be made.

Even with its weaknesses, ADIFCE had positive impacts and shows the potential that TCSOs hold for transportation infrastructure. ADIFCE provided legitimacy to civil society actors while reinforcing a sense of unity along the line. Sidestepping the structural weaknesses of ADIFCE is possible by recognizing how a TCSO can be more effective over large geographical distances. Particular attention should therefore be given to making the organization less dependent on foreign aid and enabling it to be self-sustaining. Keeping TCSOs' operating costs low is essential – especially when their membership is spread over hundreds of kilometers. Improving transparency would also allow members to feel confident that their membership dues go towards the intended purpose of protecting their transportation interests while leveraging external funds.

Despite the challenges in making TCSOs viable, they have the potential to play an important role in both the transport sector and in the broader project of inclusive policymaking. The ability of TCSOs to sustain efforts over time and over a large distance can make the other four spheres more responsive to the transportation needs of actual people, their households, and their communities. A strong TCSO would be in a better position to unify its prospective members as well as build external support so essential for keeping transportation infrastructure and services viable. In a society of individuals, “men and women, rich and poor, old and young, all trying to find a place in it, some [are] much better organized than others to express their needs” (Marris 1998: 9). Facilitating the creation of TCSOs in SSA will enable those who have traditionally been excluded or overlooked to have a greater voice in the provision of transportation services and infrastructure.

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## **Chapter 5**

### **Conclusion**

#### **I. Introduction**

The previous three chapters/articles provide readers with the history of the FCE from its initial conception by colonial administrators through the period of its rehabilitation. This case illustrates the various factors (e.g., lending policies, actors' objectives and rationalities, weather, conflict, etc.) that can affect a colonial-built railway. Much has transpired for the generations of people who have used the line, but the fact that it has not closed is a testament to the dedication of its supporters. This case also holds lessons for railway supporters in other LDCs. Specifically, it shows how civil society, especially TCSOs, can impact outcomes affecting these lines.

This chapter synthesizes the dissertation findings and reports the answers to my research questions. Although this research offers specific contributions to other disciplines, such as African Studies or Heritage Studies, the core of my research aims to address inform Transportation Studies about the potentially important role that TCSOs could play in this sector. These findings sometimes disprove the original arguments I put forth, which are reiterated in the next section, but how they contradict those initial hypotheses offer important insights into the case at hand and provides researchers and practitioners with lessons they can bring to other situations. This chapter, therefore, offers policy recommendations that may apply either to the case of the FCE or to other contexts where a TCSO can contribute. This chapter concludes with a section reflecting upon the research project while also offering directions for future research on transportation decision-making in LDCs and especially where civil society fits into this picture.

## II. Answering the Research Questions

The condition of colonial-era railways can be dreadful. Many governments have neglected to invest in them as necessary to ensure safe, reliable transport. These lines have also been targeted for closure due to prevailing biases in the transportation sector. If TCSOs can make a positive impact in the outcome for these lines, it is conceivable that they could do the same for other transportation infrastructures and services on which people depend. Moreover, if civil society has a role to play, it would seem that the context of a relatively neglected, yet socially valued transportation service like the FCE has been an appropriate case to investigate my research questions.

To reiterate, the primary research questions and arguments about CSOs are as follows:

- First, what effect does the presence of CSOs have on preventing railway closures? I argued that CSOs can raise the awareness of government officials to the needs of local populations that depend upon a railway, but they would have little direct impact on IDIs. I also proposed that while CSOs may not exert sufficient direct political pressure on IDIs to reverse their conclusions, they can still play an essential role in preserving railway service when a railway faces closure through neglect.
- Second, what makes these CSOs effective or ineffective?
- Third, what strategies have CSOs successfully used to motivate their prospective members and galvanize broad support for an unprofitable railway facing a permanent closure? I examined how CSOs and their allies offered different arguments based on whether the intended audience was local, national or international. I argued that the effectiveness of such framings (i.e., local livelihood, environmental protection, cultural values) depended on how they were conveyed and whether they coincided with the intended audience's interests.

In answering the first research question asking what effect, if any, the presence of CSOs have on preventing railway closures, it must be noted that not all types of railway closures are the same. The closure of a railway due to a lack of financial resources differs from one stemming from an act of sabotage. Certain actors may seek to close a line for ideological reasons or to serve their own interests. Even a naturally occurring event such as a cyclone can halt train service. The possibility that the FCE could have permanently closed due to any of these reasons was very real, but often at different times. Having an active TCSO could have in theory contributed to efforts aimed at preventing each type of closure, but such an organization did not exist for each threat. The reason why trains still run along the length of the FCE depends on the threat it faced and who participated in efforts to protect it.

The role of a CSO does make a difference under certain circumstances. The TCSO called ADIFCE was created with guidance and encouragement from development staff to work in conjunction with other railway supporters. Although railway advocates believed ADIFCE would lend legitimacy to civil society actors in the eyes of GOM and IDI staff, it did so in the broader community as well. ADIFCE built public support for privatizing the FCE and increased villagers' sense of ownership of the line by promoting the heritage argument and adherence to the *dinabe*. ADIFCE's participation in efforts to curb the use of *tavy* and encourage the planting of vetiver on nearby hillsides resulted in a noticeable decline in landslides, which reduced the potential for service disruptions. Moreover, the solidarity that ADIFCE helped foster manifested itself most clearly in the actions taken to protect the line during the 2002 political crisis.

While ADIFCE helped to strengthen solidarity among civil society, they did less to directly raise the awareness of the FCE's plight either among government officials or IDI staff. I had originally argued that ADIFCE would seek to affect the opinions of these experts and decision-makers by proposing certain framings or arguments to them. Contrary to even their own initial ideas about what their role would be, ADIFCE did very little to lobby actors from outside the region. Other FCE supporters,

particularly OPCI and the staff of the USAID-funded development projects, were the counterparts of ministry officials and IDI staff. Aside from a handful of introductory letters sent to various ministers over the years and meeting officials during the study tours to emphasize the importance of the line for actual users, ADIFCE took relatively little direct action to change outsiders' opinions. Most key informants who worked most closely on the FCE dossier for IDIs or the national government could not recall that a CSO was dedicated to promoting the FCE and almost none could name it. Some informants remembered OPCI when prompted, which is probably due to the fact that the mayors who made up this inter-jurisdictional entity participated in official donor meetings regarding the FCE's rehabilitation. It can safely be said, therefore, that ADIFCE did not seek to directly challenge the positions or rationalities taken by these officials.

That said, the efforts in which ADIFCE participated did not go unnoticed by IDI staff or government officials. ADIFCE members helped disseminate the news that IDI officials were coming to visit the line so that villagers could be present for the meetings that ensued. IDI staff remembered having met community representatives on study tours, which is corroborated by other informants who added that these individuals were mostly ADIFCE members (see Chapter 3). As argued in Chapter 3, these interactions helped change the opinions and especially the preconceptions these staff may have had. Although the heritage argument was not oriented to IDI staff, it was nonetheless memorable for them. The sense of heritage and unity to which ADIFCE contributed was palpable enough that IDI staff could sense the importance of the FCE in people's lives – enough that many of these individuals could still recall the heritage argument years later.



Source: J.P. Rajaona

**Figure 22 Study tour meeting**

With respect to the second question about what makes a TCSO effective or not, one of the critical factors is funding. It is expensive to maintain the communication infrastructure across long distances in Madagascar and even though the FCE is a relatively short line, it is still a large distance to maintain common interests. ADIFCE used donor money and membership dues (initially) to publish a newsletter and organize official meetings. ANP members received a small stipend of roughly 200 Ariary (\$0.10) per night that they served on watch duty. Neither group was financially self-sufficient, but this posed more of an issue for ADIFCE given that their objectives could take years to realize. ADIFCE is now said to be “sleeping” due to its inactive state. Informants all agree that this is due to the lack of funding. Without enough money to organize an annual meeting, though, ADIFCE has been unable to select a new president according to its bylaws, which became an even more important issue after he recently passed away.



In response to my third question and related argument, ADIFCE's framings were tailored to their target audience. They emphasized the heritage value of the railway and the shared importance of honoring the ancestors who had sacrificed so much during the line's construction. Rather than preach about the importance of protecting the forest for biodiversity or other more abstract environmental values that may gain traction among Western audiences, railway supporters (including ADIFCE) stressed the importance of protecting the forest so as to guarantee farmers could have water for crops and thereby sustain livelihood for themselves and their descendents (Young Men's Focus Group, Tolongoina, 23 Sep 2009). Even in their effort to encourage vetiver planting, they did not dwell on the technical aspects and benefit of this plant for the railway, but appealed to farmers' longing to diversify their crop production in ways that generated income and maintained both their short-term and long-term livelihood (Hengchaovanich and Freudenberger 2003: 7).

So even though ADIFCE made significant contributions in collaboration with other railway supporters, it did so in ways that do not always conform to my initial arguments about *who* they were trying to influence. They did not play a large role in the decision-making process about the railway or actively seek to change the opinions of government or IDI staff. Instead, ADIFCE focused on uniting civil society behind the rehabilitation project and especially to build public support locally for privatization and to discontinue *tavy* in the region. Moreover, it is important to note that ADIFCE did not work alone on these efforts nor did the interventions on which they participated even usually originate with them. The USAID-funded development projects conceived of most of the interventions, but ADIFCE adopted them as if they were their own with the blessing of project staff. This had the practical implication of lending legitimacy to these efforts so they did not have the false appearance that only donors or the railway administration wanted to save the FCE. ADIFCE leaders and members also worked seamlessly alongside FCER staff to realize the results of their interventions. So while this TCSO did not single-handedly halt the FCE from closing, their participation contributed in a meaningful way to the effort of keeping the railway running.

The future of the FCE is anything but assured. Even if ADIFCE is revived and the population along the line united once again, it still might not be enough to keep the trains running. As the three articles in this dissertation show, its closure would likely cause many social, economic and environmental problems as well as cause irreparable harm to the cultural heritage imbued in the railway. What is also clear, though, is that had nobody—including ADIFCE—stepped forward to defend the line, the outcome would have been self-fulfilling. Having a TCSO, even if inwardly focused on civil society, played a critical role that made a difference in the trajectory of this heritage infrastructure.

### **III. Implications for Planning and Policy**

This case and the related literature review hold lessons for planning and policymaking, and particularly for advocates of existing transportation infrastructure and services sometimes left teetering on the brink of closure. In the context of transportation planning, decision-making processes have tended to emphasize the direct economic costs and benefits of a project (like a railway) thanks to transportation experts' adherence to a formal or instrumental rationality without adequately questioning the ends being sought (e.g., market-oriented approach vs. ensuring local livelihood vs. environmental sustainability). Although this simplifies analyses and comparisons of transportation projects, it is a narrow perspective that does not necessarily even contribute to development goals.

Introducing more balance into the decision-making process can produce results that better serve transportation users and beneficiaries. The case of the FCE shows that railways in SSA are more than just a list of performance measures or the sum of their balance sheets. The FCE has positive effects on issues such as environmental protection, public health and livelihood that are often difficult to quantify for use in a CBA. The history of the FCE also influenced the level of solidarity in the region, which in turn has impacted many local, regional and even national issues. Other

railways in SSA provide similar benefits, and properly recognizing them could potentially affect decisions about whether or not to preserve existing lines. This does not mean that these factors will or even should play the most important role in decisions, but they can be important and may shift a close decision in one direction or the other. In other words, consideration of these overlooked benefits is not only possible, but also a necessary challenge for planners.

As important as it is to consider the multitude of railways' benefits, it may be just as difficult to learn about and include them in the process. It is clear that past and even current decision-making processes involving these railways, for example, have not considered these benefits early enough (if at all). Those actors currently engaged in these processes need to find ways to better understand the context and specifics of transportation projects. Development experts learned about the FCE's heritage value, for example, by meeting with members of the public. They then capitalized upon this idea and launched an outreach campaign to sensitize the population to the importance of protecting the railway. Using strategies from the outreach campaign to rekindle memories of the deplorable acts and realities of SMOTIG, railway supporters were able to build solidarity for preventing *tavy* along the line and even get some villagers to spend their free time helping to preserve service on the FCE during events – both natural and political. While the heritage from SMOTIG may resonate particularly strongly with Malagasy who believe their ancestors are present even after their death, other researchers have pointed out that a sense of shared heritage is present on other colonial-era lines too (e.g., Abé 2006: 224). The sacrifice of the men who built those lines across SSA, as well as the families and communities that suffered alongside these forced laborers, opens the possibility of using heritage as a potential unifying force elsewhere.

Employing the idea of heritage, though, raises an interesting contradiction for planners and policy makers. What some experts may call “heritage,” economists usually label as “sunk costs,” and this distinction can have a profound effect on the assessment of a transportation service or infrastructure. Economists treat resources that have already been irrevocably incurred as “sunk costs” and assert that basing

decisions on these monies already spent is indicative of bad decision making – labeling new investment based on past action as a “sunk cost fallacy” (McAfee et al. 2010: 323). Yet as many transportation economists demonstrate through their actions and reports, they are themselves caught up in a “rational fallacy” because they assume a singular form of rationality exists (see Chapter 3). Moreover, even voices within the field of economics have argued that actors may respond ‘rationally’ to sunk costs under certain conditions (McAfee et al. 2010: 333).<sup>79</sup> Bringing ideas such as “heritage” into the process necessarily considers sunk costs and, therefore, requires that experts involved in the transportation decision-making process need to first recognize that a plurality of rationalities can be employed. This would likely require changing the perspectives of the other actors involved in the process.

The question then becomes how can transportation decision-making processes be altered to consider these issues. The case of the FCE illustrates the potentially important role that a champion can have in bringing attention to a particular transportation project and how their pressure for the consideration of these benefits can make a difference in the planning process. This person, people, or group(s) can articulate the benefits of a transportation project. Sometimes champions are self-anointed, but it is also conceivable that all of the concerned actors come to recognize a key individual or group over time to be a champion based on their involvement, skills, influence, etc. Clearly not all railways or other transportation projects are fortunate enough to have a champion. Yet for cases where at least one champion can lead in an effective way, there are potentially significant benefits. Planners can help champions emerge or succeed with their support.

Study tours can also play an essential role in altering the preconceptions that IDI staff and government experts may have about a railway or other transportation

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<sup>79</sup> McAfee et al. (2010) do not address the concept of rationality, which appears to take a singular form in their work.

project. These study tours can be led by champions, but seem to have greater efficacy when they involve local community members in direct discussions with the recipients of the tour. This gives experts and other actors a better understanding of the local context, which also puts a human face on the population that will likely be affected by outside experts' decisions that adversely affects local transportation service. This can make some individuals more receptive to the introduction of certain variables into the CBA process – particularly those that are difficult to quantify. More broadly, study tours have the potential for improving decisions by acting as a reality check. Experts and other visitors may question initial results and assumptions if they do not match the reality on the ground. The challenge for planning is to build adequate time and resources into the process for these visits.

Another key lesson for planning and policy making is that TCSOs have the potential to impact the outcome of transportation projects. ADIFCE, for example, successfully worked with other actors to build solidarity along the line and halt the practice of *tavy* that threatened the line's infrastructure. Having this active TCSO also meant that local Malagasy farmers did not interact exclusively with paid staff from development organizations or government. This was especially important in early 2002 when development staff were not present during the political crisis. Instead, ADIFCE members helped protect the railway and encouraged others to do so too through ANP using the same arguments from the rehabilitation project. The solidarity ADIFCE helped generate and channel during this period could not have been foreseen when the TCSO was founded, but it turned out to be fortuitous.

In fact, organizing civil society under the banner of a TCSO can produce benefits to all the 'spheres of action' discussed in Chapter 4. For civil society, having an effective TCSO in place can keep the public informed of potential changes that may affect their transportation services and can in turn represent their views to other actors. For the corporate economy (i.e., private sector companies), a TCSO can build public support for an entity's operations or a privatization process, which can reduce uncertainty and improve security for its assets and services. Governments and transnational nonprofits (i.e., IDIs and NGOs) can save time and resources by

continuously engaging with TCSOs both in identifying problems and in developing projects aimed at resolving them.

The question of legitimacy is an important one for TCSOs. These organizations can lend legitimacy to members of civil society in the eyes of many external actors as well as the general public. While this has obvious benefits when the leaders and members act in good faith, the risk that an organization claiming to speak on behalf of civil society could be corrupt, ineffective, unrepresentative or even co-opted by other actors for insidious reasons certainly is a possibility too. However, adequate transparency can reduce the likelihood of these adverse outcomes – or at least the perception that they plague the organization. Arguably, had ADIFCE been more transparent and inclusive in its governing structure, prospective members would have seen annual dues as a valid obligation. Yet the lack of transparency created the perception that improprieties or wastefulness existed in how the organization spent its budget, which affected its ability to collect enough membership fees to be self-sustaining. Other TCSOs would be wise to make transparency and broader participation in their leadership ranks a high priority in order to ensure their organizations' continued legitimacy and existence.

TCSOs need to focus not just on winning over prospective members, but also on swaying decision makers. ADIFCE did not attempt to do this and this was a limitation in their capacity to ensure the FCE continued to serve communities. Planners and other actors who are already empowered in existing transportation decision-making processes can encourage the participation of TCSOs. After all, TCSOs can engage with public officials on behalf of their members in a fashion that is more sustainable and predictable than individuals or a social movement. Many policy decisions or actions are of potential interest to transportation beneficiaries because they impact them personally or could eventually lead to rollbacks in service (e.g., fare changes, goods handling procedures, contracts with suppliers, etc.). Yet these changes may not inflame the passions of enough people to initiate, let alone sustain, a concerted effort to influence outcomes. Occasionally, though, civil society has mobilized quickly to protect their transportation interests. Social movements

have been highly effective at changing outcomes and decisions that displeased the public, but these activities were usually only roused by drastic cutbacks to service. They can also take highly disruptive and costly forms of expression such as protests or other forms of civil disobedience that, although effective, is more indicative of a planning process that has failed to account for different perspectives.

Any organization needs some resources to conduct their business, but TCSOs can be particularly sensitive to this issue when members are spread out over large geographical distances. In LDCs, funds for operations are crucial because communication expenses are relatively high anyway. As has been seen, sustaining operating revenue over the long-term is challenging. There are a variety of ways that TCSOs can finance their organization's activities or reduce their costs. ADIFCE's requirement to have annual meetings and votes in person proved to be an expensive undertaking that required subsidies from development organizations. Mandatory dues can also have the perverse effect of actually shrinking membership – thereby weakening the organization. Funding mechanisms, therefore, need to be developed based on the context and with an eye also towards maximizing membership. In addition, the resulting collection and handling of funds from any source must be handled in a steadfast, transparent fashion.

For those individuals and groups interested in developing sustainable transportation solutions that achieve more than just what is reflected on an annual report, the lessons from this case can inform planning practice and policy making. Balancing the traditional justification for operating transportation services with other important factors, building solidarity among different actors and especially the beneficiaries, finding champions, and recognizing the value of study tours can improve transportation decisions and outcomes. Likewise, planners and policymakers can encourage the formation, sustainability and active involvement of these TCSOs by ensuring they remain democratic, transparent, well-funded and engaged with all stakeholders.

#### **IV. Policy Recommendations**

If some of the threats posed to a railway originate with civil society, the case of the FCE indicates that TCSOs like ADIFCE who work to unite the general public can make potentially valuable contributions in the transportation sector. Yet if railway supporters want a TCSO that affects other actors, then steps should be taken to realize this. This section makes a series of policy recommendations that draw upon the research findings and interviews with informants.

##### **1. Balancing Power Relations and Rationalities**

The transportation and development fields still allow only a relatively narrow set of values to guide investments – namely those that coincide with formal and neoliberal rationalities. Social movements that have formed around transportation interests have shown that civil society can challenge traditionally accepted rationalities and force the establishment to acknowledge and even respond to their position. However, these efforts are usually ephemeral because they are hard for civil society to sustain in the long-term. Meanwhile, the planning process suffers from unanticipated public outcry, which can drag out projects and increase costs.

Public participation can help reduce uncertainty while ensuring the inclusion of substantive rationality, or value-based rationality, and consideration of transportation benefits. This can elevate the profile of sometimes-overlooked benefits in the context of a particular railway. With limited or no public participation, many railway benefits risk being excluded. Those measures that are typically included also need to be evaluated relative to their importance to other variables. As Sen states, “in arriving at an ‘agreed’ range for social evaluation...there has to be some kind of a reasoned ‘consensus’ on weights, or at least on a range of weights. This is a ‘social choice’ exercise, and it requires public discussion and a democratic understanding and acceptance” (Sen 1999: 78-79). To date, genuine



public participation early in the decision-making process concerning colonial-era railways and other transportation services in LDCs has been almost nonexistent.

Arriving at this point, though, requires a shift in existing power relations. IDIs have made progress in their efforts to include other measures and citizen participation. Yet this does not necessarily correct the power imbalances. This requires, as Chambers advocates, “putting the first last” (Chambers 1997: 234-237). Whether or not the “first” do this voluntarily and sincerely is a key and open question – one that requires critical reflection by all actors including the ones who traditionally wield the most influence. Chambers at least recognizes the challenge of such a reversal of power and other changes to the way experts approach development by admitting “ideologically, it conflicts with the pervasive ethos of the neo-liberal market and the materialism and global greed of the mid-1990s” (ibid.: 234) that is largely still with us. While this is not an easy task and despite efforts to elevate civil society’s voice over the past decade, including by the World Bank, it does not mean those who are in a position of power have been willing to give it up.

TCSOs can broaden the understanding and perspectives of those actors currently dominating the discussions, but these CSOs need to find their way to the table. In supporting these groups, planners must listen to the cultural or historical arguments that resonate with these groups and the people they represent. These framings can complement the economic focus that continues to dominate transportation analyses. Already-established TCSOs could provide better input into planning processes and decisions affecting their constituents. This saves government and other actors’ time and resources they would have spent attempting to gauge how certain changes would affect potential transportation beneficiaries. Despite this advantage, the literature about social movements trying to affect transportation services indicates that some TCSOs would need to contest existing power structures for their right to participate (e.g., Monson 2006).

## 2. Study Tours

Study tours can be an effective way to broaden individuals' perspectives and allow them to consider other rationalities. What often took a decade to build and has provided years of benefits can all too easily be dismissed in a few days of reading a summary report and spreadsheets of performance measures. Study tours can balance the dominant rationalities found within professional settings (i.e., utilitarian, neoliberal) with the substantive rationality of the actors in the field.

Field visits are not passive viewing experiences like seeing photos or watching a video. Rather, they provide outsiders with the opportunity to immerse themselves in the world of those people living along a railway. A study tour can include a flyover or a drive along the infrastructure to gain context, but they also allow the public into the process so that stakeholders can meet each other at least once before any decision is made.

FCE supporters aimed to create what one informant called "a learning environment" that allowed outsiders to actually get out of the train and meet with people who use or benefit from the line. They based this key intervention on the idea that seeing the railway and meeting with stakeholders held tremendous opportunity to shape people's opinions about the line. As noted in Chapter 3, IDI staff who worked on the FCE dossier confirm that riding the railway influenced their opinion. Seeing the line with one's own eyes conveys information that photos or reports never could – including providing a tangible representation of the context in which railway beneficiaries live.

TCSOs can either give these tours or, as in the case of ADIFCE, actively participate in the presentation of certain information during them. Whereas a public railway administration may find it impertinent to extend an offer to government officials and IDI staff to see the context in person, TCSOs can do this. TCSOs can also save time for outside actors coming to the region, which could make them and the process more effective.

### **3. Direct Lobbying**

One of the greatest missed opportunities for ADIFCE was its failure to take a more direct role in influencing actors from outside the region. It is an understandable omission because many railway supporters feared ADIFCE would be perceived as partisan. This concern of being labeled the proxy of one political party continues to be risky given that the reins of government have changed hands multiple times since 2000 and because Fianarantsoa is seen as a “swing” city that is not dominated by any one political party. Yet the events of 2002 demonstrate that the support for the railway transcended political divides and even brought people closer together – having accomplished what could not be done for road bridges across the country. Moreover, the decision to cancel the concession was made by the president, who benefitted from the FCE during the crisis yet feared his perceived adversaries could come to control the line (see Chapter 4). Without any real political force in place, his decision went almost uncontested.

TCSOs should be non-partisan and should focus on serving its members, but this does not mean that they need to be apolitical. It is clear that transportation decision-making is highly political with many competing interests and actors pushing to achieve conflicting objectives. Ignoring this fact is a disservice to the people who depend on existing infrastructure such as colonial-era railways. Therefore, TCSOs can and should be encouraged to exert political pressure directly on government officials – particularly those in elected positions.

One way that they can do this is by providing factual information to their members about politicians in the run-up to elections. TCSOs can ask all candidates about their position towards the transportation infrastructure in question. For incumbent candidates, TCSO officials can ask them what actions they have taken to support the railway during their term, including evaluating them on any transportation-related promises they have made. Candidates would know that their responses would be provided not just to organization members, but would be disseminated by organization members to all households in the communities along the line. This effort would help inform voters about an issue and how candidates

plan to represent their interests. It also reminds candidates of the transportation issue's importance to the population and alerts them to the fact that a nonpartisan organization exists solely to promote the interests of those people who depend upon it. Encouraging TCSO members to be an active and informed electorate bloc without going so far as endorsing a particular member would make TCSOs like ADIFCE a powerbroker without aligning them with any one candidate or party.

TCSOs can also exercise political power and influence public officials—even experts from IDIs—through letter writing campaigns and petitions. ADIFCE's president did send a handful of letters to government officials just to let them know that the organization existed and what its goals were. This is arguably less impressive than a bundle of individual letters from villagers along the line telling national government officials and even IDI staff how important a well-functioning train is to their lives. Organizing a mass letter writing campaign, like some social movements do, would demonstrate that TCSOs have the capacity to organize hundreds or even thousands of people on behalf of a common goal. It's one thing to say in a single letter that the population is unified; it's another to show it with a thick stack of letters.

TCSOs should be cautious not to start aligning themselves too closely with one politician or one party. The case of the mayor of Fianarantsoa organizing the meeting that angered the president of Madagascar (see Chapter 3) is a prime example of how introducing political figures can be counterproductive to the cause of helping a railway. Sometimes TCSOs may feel pressure (real or perceived) to align themselves with one political side. Forming an alliance with powerful interests may seem strategically expedient to achieving their goals, but politicizing the TCSO in this way can risk it being ostracized should the political winds fail to blow in their direction. TCSOs can temper politicians' feelings of being slighted by clearly communicating in advance that any and all politicians can be an ally of a transportation service. This acknowledges that people can have different viewpoints on other issues, but that there is room under the tent for everyone when it comes to a specific transportation service or infrastructure. In fact, designating certain TCSO

members from different parties to communicate the organization's ideas with their own parties would perhaps be more effective so long as they are not trying to form a political alliance against the other parties.

#### **4. Funding and Budgeting**

TCSOs need financial resources to operate and implement their strategies. The costs of paying for staff and consultants, office expenses and supplies, transport and holding meetings can add up. The cost of communication is especially high in LDCs like Madagascar (SSI with Informant 8, Fianarantsoa, 13 Jul 2008), which can hinder many of these organizations' objectives. However, the idea of having a group like this is to recoup these costs and generate enough revenue to allow the group to achieve its goals. Ideally, every bit of funding expended will pay dividends in rehabilitating a railway.

Finding funding for railways in LDCs is difficult and also a challenge for the TCSOs that would seek to preserve them or other types of transportation infrastructure. To facilitate railway rehabilitation, it is sometimes difficult to use certain development projects' funding because their mandates might not be sufficiently close to the transport sector. The case of the FCE receiving funding from agricultural, economic or environmental programs shows the importance of framing a railway's benefits. In cases of other transport infrastructure, the benefits may be less clear, but still important. Transportation does affect other sectors, though, so projects can often justify investments. Still, this often takes some skill on the part of advocates to make the case to support an intervention in the transportation sector – particularly because this sector is usually considered the responsibility of government. So the challenge for TCSOs has been and will continue to be to find pots of funding for which they too are eligible.

Typically, CSOs receive support from donors. Donor support, though, usually requires applying for grants. This takes a minimum degree of skill and knowledge about what sources of funding exist – two things not always initially available to

civil society when it first wants to form into an organization. Even once they successfully form a TCSO, the task of finding money is complicated by the fact that mobilizing people to support transportation infrastructure is a long-term effort. The cycle duration of donor projects, which is often between three to five years, is not always conducive to such efforts. Indeed, this is not much time for a campaign to rehabilitate a railway. In other words, while donor funding is an excellent resource, it is not necessarily an inevitable result of organizing and may not be enough to sustain operations indefinitely. TCSOs need to pursue funding options other than development projects if they are to be sustainable in the mid- to long-term.

CSOs often rely on membership fees to bolster their budgets, but these can be expensive for cash-poor populations – particularly for those people living in rural areas who may rely largely on subsistence farming or use their money for other vital needs like medicine or education. The true value of TCSOs having many members is to support their claim to legitimately represent civil society and to marshal their members to achieve goals rather than increase their proceeds. Many people along the FCE were too poor to pay this annual fee or were unsure whether their hard-earned money would be spent wisely. At a minimum, TCSOs should tailor the membership fee structure to maximize their membership size rather than their revenue.

Ideally, TCSOs should have free basic memberships, but also encourage users to make a financial contribution. Removing the membership fee reduces this potential barrier to joining as well as a potential cause of friction with the community. They can even offer certain incentives for voluntary donations by members such as using their combined purchasing power to negotiate with transport providers for discounts that allow contributing members certain privileges. Donating members could receive a gift such as an individual or family portrait, which in LDCs are not plentiful or cheap for rural households. They can also offer free off-peak trips, class upgrades depending on availability and excess baggage allowances – all things that might appeal to their members and which would concurrently improve performance on the transportation service by removing excess capacity.

Developing a sustainable funding model for a TCSO does not always depend on boosting revenue. Using a decentralized, streamlined model that reduces the need for cash expenditures may be preferable to the top-down system ADIFCE had. For example, informants criticized ADIFCE as overly bureaucratic because it took a lot of effort to organize meetings, including voting for its leadership, and even then these meetings sometimes failed to happen due to a lack of funding. Instead of requiring all members to vote at a single meeting held in one location on one day, members could vote for their officers at their local chapter, at a sub-regional meeting, by proxy or by mail. A TCSO that does this would not have to pay for the travel and a *per diem* that ADIFCE had to pay to get members to come.

Paying a *per diem* for either attending meetings or almost any other type of activities is an undesirable precedent that has become standard practice in some parts of LDCs where NGO and donor-funded projects are active. Civil society members now expect and even demand these payments. Unfortunately, this has fostered the idea that participation is designed to benefit outside aid groups rather than the population for whom they are working. This mentality must change and will require sensitizing the population. While this might be an acceptable cost when a TCSO like ADIFCE receives funding from donors, it is also the primary reason given as to why the organization is no longer active. Members will know that their attendance at meetings will not be for cash, but they will receive donated food and refreshments, hear news from outside the community, receive the latest newsletter and have the opportunity to provide feedback that will be transmitted to the relevant authorities.

Another way to both reduce costs and still provide similar perks to their members is for TCSOs to request in-kind contributions from the communities should also be pursued. For example, they can ask community leaders and local merchants to sponsor the refreshments at their meetings, which is also a sign of buy-in by members. Donors' contribution can be explicitly recognized at the meetings by the facilitators or in newsletters circulating along the line. It is reasonable to assume that many community members will appreciate the

contribution of food and this could build loyalty for the store or give the community member a feeling of respect and prestige among their peers.

Still, in the case of TCSOs dedicated to railways, some innovative forms of funding could be generated – namely from tourists with disposable income. Many people ride trains for the experience and would like souvenirs to commemorate their trip. The FCE tourist brochure was a promising idea, but as noted above, the model failed to be a sustainable revenue stream for ADIFCE. Mostly, the failure lies in its execution because the locations where tourists could buy them were dispersed and it was difficult to limit the loss of brochures and resulting revenue.

The idea of the tourist guide could still be feasible if TCSOs close the “gap” between the outlets and tourists. TCSO staff should be able to sell brochures directly on the train and at the platforms. Selling to tourists directly on the train will minimize TCSO staff time and collection expenses, as well as loss of the items. Tourists should be informed by the vendor and with a written flyer that the revenue from their purchase would be used to support the group and its effort at rehabilitating the FCE. Properly conveyed, tourists will learn that their purchase will benefit their own experience on the FCE and the communities that depend upon it. They may even decide to make a larger purchase or donation.

TCSOs could also expand the range of items that appeal to tourists who either want a unique souvenir or the convenience of buying one on the train. These souvenirs, supplied by local artisans and merchants, could come from the area the train traverses (e.g., baskets woven from vetiver), embody a railway theme (e.g., carved wooden or pottery trains), or bear the railway’s picture or logo (e.g., clothing, bags, wallets, postcards, professional photos, etc.). The TCSO could decide to dedicate a small percentage the resulting profit to the railway for administrative reasons, which serves the larger goal of demonstrating the line’s ability to develop new revenue streams.



## **5. Finding Passionate Champions**

Having some money is essential for a TCSO, but having passionate stakeholders is an invaluable asset – especially those individuals who can serve as champions of a transportation service or infrastructure. As discussed in Chapter 3, having key advocates, or “champions,” is critical to shifting the balance of rationality that can help preserve train service. Finding a champion is not necessarily something a TCSO can plan to do. Sometimes it is just serendipity that a champion decides to step into that role, but there are times when a suitable person just needs convincing. TCSOs can provide champions with support that makes this sometimes-exhausting role a little easier.

These champions do not necessarily need to be members of the TCSO. They can be staff at governmental entities or at development projects. By virtue of their position, status or even professional role, champions could gain access to key international and national actors and review documents related to the project. Although they can be politicians, this brings certain risks of politicizing the effort. Ideally, the champion will not be politically polarizing and should be able to navigate the political landscape to build support across party lines. There are advantages to having outside champions because champions who have more freedom from these pressures can often be found outside of government. Members of civil society could, depending on their skills, fill this role. In the case of the FCE, the strongest champions tended to be expatriate development experts with a few Malagasy stepping forward at times. While there are advantages to having champions who are outsiders, it helps to have champions within the organization too. This includes providing control and legitimacy.

Communication and facilitation skills help define effective champions. These skills allow them to speak with a wide range of actors and grapple with competing rationalities and objectives. The interactions they have with other actors can help determine if a line is worth saving. For example, champions can provide other railway supporters with the ability to challenge assumptions, arguments, and statistics. Their ability to secure funding and donated equipment from both IDIs and

non-governmental sources can help keep a railway like the FCE alive. In fact, their communication skills are key to their effectiveness. They are key actors recognized by both insiders and outsiders as passionate about the cause and capable of marshalling support. Backed by evidence and arguments, persuasive champions could also take risks that others are unwilling to take and show a level of dedication others do not exhibit.

## **6. Expertise and Social Organizing**

Perhaps even more critical to a TCSO's success than a champion is having volunteers or staff with the right skills working for them – particularly if no other railway supporters have those necessary abilities. Having access to these human resources becomes particularly important where development agency staff are not as supportive as they were in the case of the FCE. These people could possess technical skills or cultural knowledge that aids the TCSO. With the right contacts and resources, an organization can find experts who can critically examine the assumptions and arguments that may otherwise go unquestioned.

For example, understanding CBA and providing constructive feedback on how to modify it can completely change the calculus and, thereby, many experts' view of a project. Yet if nobody with the skills is motivated to take a closer look at the CBA, then certain errors and omissions may be overlooked. The same problem arises if someone wants to challenge it, but does not possess the technical or community skills to do so. In the case of the FCE, one of the reasons that the arguments favoring preserving the railway gained so much traction was due to the ability of railway supporters to bring arguments into the decision-making process that normally not considered. Namely, by quantifying the impacts of the line's closure on forest resources and local livelihood, railway supporters expanded the scope of the CBA.

Expertise is not just the possession of those who can respond to technical and economic analyses. TCSOs can bring enormous amounts of local expertise to the discussion, resulting in more appropriate and sustainable solutions. The case of the

FCE shows the value of people who have the right skills to complement the passion and motivation of members. Malagasy social organizers working on the FCE dossier were able to tease out important information, such as the heritage value of the line, while also recommending a more positive approach to interacting with the general population. Local knowledge proved valuable in the aftermath of cyclones along the FCE when villagers helped railway workers identify locations where drainage infrastructure had been buried or where soil was unstable. The director of FCER emphasized the value of having a social organizer position built into their budget so that they could adopt a participatory approach from the start (Correspondence with Karen Freudenberger, 27 Jul 2009).

## **7. Transparency and Regular Communication with Community Members**

In order to maintain legitimacy with both members and outsiders, TCSOs need to be as transparent as possible in their internal decision-making process and in the management of the organization's resources. For example, having written bylaws and a formal voting process for relevant decisions can help ensure that a TCSO responds to the desires of its members. It also reassures outsiders and members that the organization is not acting as a proxy for another actor in the decision-making process. Of course, it is equally important that a TCSO regularly meet with its members. Having a strong, formal framework and actually abiding by it, helps ensure the organization's continuation.

Railway supporters might have wanted to portray ADIFCE as grassroots that implies transparency and democratic decision-making, but it is clear that this TCSO was a top-down organization. Although ADIFCE has bylaws, it has failed to hold regular meetings due to the costs of transporting and hosting key voting members. Inconsistent and irregular consultation by the leadership with members might have reduced costs and sped certain decisions, but it decreased the likelihood that villagers would consider themselves members because it decreased transparency of what ADIFCE was doing. A TCSO does not need to consult with its members on each

issue that arises during the course of a campaign, but the public needs to know how decisions are being made and what those decisions are.

Voluntary public disclosure of financial information is also critically important both for donors and dues-paying members. Nobody donating funds to a TCSO likes the idea that money is being spent frivolously or for the personal gain. Whether or not a country has a mandatory reporting mechanism for a non-profit CSO like ADIFCE, the leadership should voluntarily make its books available for public inspection. Showing the revenues, expenses and savings can cut down on the perception that an organization's leadership is corrupt or its operations wasteful. Some may think that a TCSO showing the size of its war chest gives an unfair advantage to opponents who are not so transparent or that it invites unsolicited funding requests that cannot be met – perhaps even for paying for a railway's deficit. Opponents in transportation conflicts will not care so much about the TCSO's budget as how it can muster its influence, which includes non-monetary human resources. Fear that they may be asked to help pay for the actual operations of a railway is unfounded because a TCSO could not generate enough money to support service. Moreover, if its mission is clear, as ADIFCE's was, then it should be easy to deflect inappropriate funding requests that cannot first be put to a general membership vote. Rigorous reporting and auditing open to public inspection can also offer TCSO administrators sufficient cover to prevent racketeering.

Being transparent requires a strong communication structure. One of the greatest deficiencies along the railway is the lack of reliable, credible information. Residents of some FCE-adjacent villages will walk uphill for 30 minutes in search of a sufficiently strong cell phone service. Radio reception is limited both by the topography and the lack of electricity in these communities. Most information travels by letter, word of mouth, or the CB radio of the railway in urgent situations. While ADIFCE used to provide their color newsletter *Ny Dian'ny Mpianala* to its members, this source of information has stopped since the organization's funding disappeared. In villages that have relatively little printed material, even a black and white printed newsletter of roughly four to eight pages could attract a steady

readership. A TCSO like ADIFCE can inform the public about their actions and budget in this way. The scarcity of the printed material will help it be shared by multiple readers. The newsletter could also attract a broader audience to its core content if it also includes a page or two oriented towards public interest items, such as recipes, prices of goods, poetry, cartoons, short stories and even jokes.

## **V. Conclusion: Reflections, Questions and Further Research**

It would be an ironic outcome if efforts to save colonial-built railways, which many experts have viewed as an anachronistic mode of transportation (e.g., Bickers 1976: 1), lead to a more inclusive planning approach. After all, this approach so markedly departs not only from the deplorable origins of these lines where a colonial power imposed them onto an often-unwilling population, but also from the existing transportation decision-making paradigm. Yet it should not be too surprising given the complex, important and yet often underappreciated benefits that these lines are providing in a region with relatively few transportation alternatives. Beneficiaries of these lines have much at stake and are right to criticize railway detractors for glossing over this mode's benefits while emphasizing their weaknesses. As with any transportation decision-making process, the public (especially existing users) should have the opportunity to participate as partners rather than passive recipients. A genuine public participation process would be a key step forward to remediating the existing power imbalances and the deficiency in acknowledging colonial railways' benefits.

Public participation is far from a panacea. Even when the public is invited to participate, it rarely is asked to help develop the criteria or weighting used to judge the merits of projects or services. It is also not enough to have a comment period based on options already developed by experts; civil society must be meaningfully involved throughout the entire process. It is plausible that experts would cite the existence of a public participation component in the decision-making process as a defense of actions taken, regardless of whether or not the ideas of the public were

ultimately considered. Experts often use positivism's claim to objectivity for political advantage or cover (Simon 1996: 56-57). It is conceivable that public participation would serve the same purpose. Leivra asserts that efforts to expand the role of participatory governance and civil society in economic and social decisions could actually result in "the subordination of the public sphere and noneconomic realm to the logic of transnational capital" (Leivra 2008: 17).<sup>80</sup> So even though the alternative of no public involvement is not desirable either, caution must be exercised in how it is done.

Incorporating transparency and reflexivity into the process can reduce the likelihood that public participation is used merely to justify decisions already taken by powerful interests. Making transparent the ways that various actors and their power influence transportation information, values, and decisions means that constructive steps can be taken to ensure a fairer process – one that considers the perspectives of those most affected by planning decisions. Giving people the opportunity to voice their views—including about the methods and process—also increases the legitimacy of decisions. If the process is done well, stakeholders' differing perspectives can uncover the hidden ideologies at play and question long-standing rationalities – including those that actors inadvertently hide from themselves. This reflexivity, and especially self-critical reflection by individuals and groups, can enable actors to better understand the realities of others and allows for "doing better" (Chambers 1997: 201-203). There is little doubt that the transportation sector could do better to incorporate civil society's perspective and TCSOs seem like a promising option for doing so in a consistent manner.

A key question, though, is whether existing actors will permit TCSOs to make meaningful contributions. More research on transportation decision-making in LDCs and especially where civil society fits into this picture is needed. This case study was limited to Madagascar and so other LDCs likely have different political, cultural and

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<sup>80</sup> Leivra does not elaborate on this point, but it is conceivable that the funding of political groups and NGOs by private interests could be motivated by intentions that are far from altruistic.

economic processes at work. It would be beneficial to see how transportation decision-making processes in other countries handle investment decisions. The more common TCSOs become, the easier it will be to study this manifestation of civil society and how it interacts with the other actors already heavily invested in the existing arrangement. The introduction of direct participation through TCSOs is likely to be unwelcome by many actors in a sector dominated by government, IDIs, and business interests. Having another potentially powerful set of interests, particularly one that does not necessarily share the same form of rationality, could be seen as a threat to the predictable form and balance that has been maintained for decades. In other words, it upsets the status quo. Too few transportation processes have been undertaken with genuine public participation from the start to understand how, if at all, this affects investment outcomes. Morally, though, public participation should be an expectation not an option extended by invitation.

Another question is how will TCSOs be encouraged and formed. Although researchers and activists tout the cases where civil society can organize themselves into a potent force, it is worth asking whether such grassroots organization is even possible for transportation infrastructure spanning the distances that railways and roads often do. Moreover, as Friedmann points out, spontaneous popular action that forms within a community is not common and is often limited in scope (Friedmann 1992: 144, 158). He argues that “the rhetoric of spontaneity” should be abandoned and that theorists should accept that “external agents,” or *animateurs*, play a vital role in blowing “the breath of life into the soul of the community and move it to appropriate action” (ibid.: 144). These *animateurs* “are meant to ‘spark’ endogenous change ‘from within,’ not to carry out the change program; this is a responsibility of the organized community” (ibid.).

The case of ADIFCE shows TCSOs do not need to be self-organizing. Expatriate development experts helped encourage ADIFCE’s formation. These external actors also conceived and paid for many of their activities. Yet FCE supporters also constrained the role of ADIFCE – either directly or indirectly. The question is whether outsiders can create a TCSO without imposing too many restrictions or

biases. In addition, at what point do these groups become just an arm of another actor? They must, however, have the choice to follow-through on those interventions and make other decisions on how to run their organization without undue outside influence.

The role that TCSOs do and should play in planning and development efforts may actually differ. As shown in the case of the FCE, a TCSO focused on making its own constituents conform to certain expectations without trying to make outside actors change. They *should* play one that is perhaps best explained by Marris's larger view of the interaction between civil society and planning. He explains that planning strives to articulate and resolve societal tensions between the state, the market economy and "the membership of men and women, rich and poor, old and young, all trying to find a place in [society], some much better organized than others to express their needs" (Marris 1998: 9). Although he emphasizes that planners must be sure to "represent the needs of that part of civil society which is most vulnerable, whether from economic or political disadvantage" (ibid.), they can also enable civil society to speak for itself. Planners can play their role by giving civil society the opportunity to organize into TCSOs and provide them with the tools necessary to pursue their goals.

We should not underestimate the role that these individuals, brought together under the umbrella of a TCSO and in partnership with other actors, can play in framing arguments that benefit colonial-era railways and other existing infrastructure upon which people depend. In addition, the fate that has befallen many colonial-era railways in SSA with increasing frequency is not a foregone conclusion. Now is the time to hear the unified voices of those communities and individuals too often left out of the process.

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## Appendix A

### Rail Networks in Africa

RAILWAY NETWORKS IN AFRICA <sup>(A)</sup>				
Countries	Lines		Network Density	
	Total	Operational	Km/000 km <sup>2</sup>	Km/million pop.
<i>Sub-Saharan Africa</i>				
Angola	2,841	852	2.3	222
Benin	579	438	5.1	66
Botswana	882	882	1.5	443
Burkina Faso	611	639	2.2	39
Cameroon	1,100	1,016	2.3	58
Congo, Dem. Rep. of	5,035	2,566	2	73
Congo, Republic of	795	610	2.3	198
Djibouti	100	100	4.3	194
Eritrea	117	118 <sup>(B)</sup>	1	21
Ethiopia	681	681	0.6	8
Gabon	649	649	2.4	428
Ghana	947	947	4.0	40
Guinea Conakry	1,045	383	4.3	104
Ivory Coast	611	639	1.9	30
Kenya	2,236	2,236	3.8	57
Lesotho <sup>(C)</sup>	1.6	1.6	0.1	0.8
Liberia	428	0	3.8	124
Madagascar	886	886	1.5	43
Malawi	797	797	6.7	56
Mali	641	641	0.5	51
Mauritania	704	704	0.7	225
Mozambique	3,127	2,054	3.9	144
Namibia	2,382	1,683	2.9	1129
Nigeria	3,505	3,505	3.8	23
Senegal	1,053	1,053	5.4	77
Sierra Leone	84	0	1.2	13
South Africa	21,565	21,565	17.7	440
South Sudan <sup>(D)</sup>	248	248	0.4	30
Swaziland	301	301	17.3	268
Tanzania	3,574	3,574	3.8	87
Togo	522	107	9.2	87
Uganda	1,244	261	5.3	38
Zambia	2,407	2,244	3.2	203
Zimbabwe	3,227	2,909	8.3	283
<i>Northern Africa</i>				
Algeria	3,973	3,572	1.5	104
Egypt	5,063	5,063	5.1	61
Morocco	1,907	1,907	4.3	55
Sudan <sup>(E)</sup>	5,063	4,347	2.7	164
Tunisia	2,165	1,991	12.1	190

(A) Source for this table's information is Bullock 2009: 83-84 unless otherwise indicated. All websites accessed on 09 Apr 2013.

(B) [http://en.wikipedia.org/wiki/Eritrean\\_Railway](http://en.wikipedia.org/wiki/Eritrean_Railway) and <http://www.eritreabe/railway.htm>

(C) [http://en.wikipedia.org/wiki/Rail\\_transport\\_in\\_Lesotho](http://en.wikipedia.org/wiki/Rail_transport_in_Lesotho) and <http://www.railwaysafrica.com/blog/2012/01/lesotho-rail-initiative/>

(D) [http://en.wikipedia.org/wiki/Rail\\_transport\\_in\\_South\\_Sudan](http://en.wikipedia.org/wiki/Rail_transport_in_South_Sudan)

(E) <http://www.sudanrailways.gov.sd/en/facts.htm> and [http://en.wikipedia.org/wiki/Rail\\_transport\\_in\\_Sudan](http://en.wikipedia.org/wiki/Rail_transport_in_Sudan)

**Table 2 Railway networks in Africa**

## Appendix B

### Key Informants

Informants				
Informant #	Titles/Roles (former)	Malagasy or Expat	Sphere of Action	Date(s) Interviewed
1	Manager / Director	Malagasy	State	Jun-08; Aug-09; Sep-09
2	Executive / Officer	Malagasy	Civil society (formerly State)	Jun-08
3	Manager / Director	Malagasy	State	Jul-08
4	Public / Elected Official	Malagasy	Political community	Jul-08
5	Manager / Director	Malagasy	State	Jul-08
6	Executive / Officer; Merchant	Malagasy	Civil society; corporate economy	Jul-08; Aug-09
7	Manager / Director	Expat	Transnational nonprofit	Jul-08
8	Manager / Director	Expat	Transnational nonprofit	Jul-08
9	Manager / Director	Malagasy	Corporate economy (formerly Transnational nonprofit)	Jul-08
10	Staff / Specialist	Malagasy	Transnational nonprofit	Jul-08
11	Public / Elected Official	Malagasy	Transnational nonprofit (formerly State)	Jul-08
12	Manager / Director	Expat	Transnational nonprofit	Aug-09
13	Staff / Specialist	Malagasy	State	Aug-09
14	Staff / Specialist	Malagasy	State	Aug-09
15	Elder	Malagasy	Civil society	Aug-09
16	Elder	Malagasy	Civil society	Aug-09
17	Local leader; Elder	Malagasy	Civil society	Sep-09
18	Public / Elected Official	Malagasy	Political community	Sep-09
19	Local leader; Merchant	Malagasy	Civil society; corporate economy	Sep-09
20	Elder	Malagasy	Civil society	Sep-09
21	Local leader; Merchant	Malagasy	Civil society; corporate economy	Sep-09
22	Local leader	Malagasy	Civil society	Sep-09
23	Staff / Specialist	Malagasy	Civil society	Sep-09
24	Executive / Officer; Merchant	Malagasy	Civil society; corporate economy	Sep-09
25	Public / Elected Official	Malagasy	Political community	Oct-09
26	Staff / Specialist	Malagasy	Transnational nonprofit	Oct-09
27	Staff / Specialist	Malagasy	Transnational nonprofit	Oct-09
28	Manager / Director	Malagasy	State	Apr-10
29	Manager / Director	Malagasy	State	Apr-10
30	Staff / Specialist	Expat	Transnational nonprofit	Dec-10
31	Staff / Specialist	Expat	Corporate economy	Apr-11
32	Staff / Specialist	Malagasy	Transnational nonprofit	Apr-11
33	Staff / Specialist	Expat	Transnational nonprofit	Apr-11
34	Staff / Specialist	Expat	Transnational nonprofit	Jun-11
35	Manager / Director	Expat	Transnational nonprofit	Jun-11
36	Manager / Director	Expat	Transnational nonprofit	Jun-11

Table 3 Key informants

## Appendix C

### Focus Groups

Focus Groups					
Focus Group #	Village Name	Name	Number of Participants / Observers	Location / Setting	Date Interviewed
1	Ranomena	Andrimasom Pokonolona (ANP)	4 men	Transect to Bridge and Ankarampotsy Tunnel	Aug 29, 2009
2	Ranomena	Elders	3 (2 men, 1 woman) / 12 observers	Outside Auxiliary Building	Aug 30, 2009
3	Ranomena	ADIFCE	5 (2 men, 3 women) / 4 observers	Outside station	Aug 31, 2009
4	Ranomena	Women	16 women / 6 observers	Station	Sep 1, 2009
5	Ambohimalaza	Elders	4 men (all <i>Mpanjaka</i> ) / 30 observers	King's ( <i>Mpanjaka</i> ) Palace	Sep 6, 2009
6	Manampatrana	Women	7 women	Claude's Restaurant	Sep 7, 2009
7	Manampatrana	Andrimasom Pokonolona (ANP)	5 men	Claude's Restaurant	Sep 9, 2009
8	Ambila	Elders	3 men (1 <i>Mpanjaka</i> ) / 2 observers	Mayor's office	Sep 12, 2009
9	Ambila	SMOTIG sons	2 men / 5 observers	Private house	Sep 12, 2009
10	Ambila	Women	12 women / many others in market	Market	Sep 13, 2009
11	Ambila	Andrimasom Pokonolona (ANP)	2 men	Private house	Sep 13, 2009
12	Sahasinaka	Elders	26 men and women	Mayor's office	Sep 15, 2009
13	Sahasinaka	Andrimasom Pokonolona (ANP)	9 men	Transect to Sahasinaka Viaduct	Sep 17, 2009
14	Sahasinaka	Women	5 women	Private house	Sep 17, 2009
15	Sahasinaka	Men	6 men (5 FCE dockers, 1 collector)	Station	Sep 18, 2009
16	Tolongoina	ADIFCE and OPCI	4 men (1 exclusively OPCI)	Mayor's office	Sep 21, 2009
17	Tolongoina	Andrimasom Pokonolona (ANP)	4 men	Mayor's office	Sep 21, 2009
18	Tolongoina	Elders	9 men / 2 others	Mayor's office	Sep 22, 2009
19	Tolongoina	Women	6 women	Mayor's office	Sep 22, 2009
20	Tolongoina	Men	5 men (3 FCE dockers, 2 collectors)	Mayor's office	Sep 23, 2009

**Table 4 Focus groups**

## Appendix D

### Translations

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- <sup>i</sup> « Cependant, le souvenir vivace du SMOTIG comme symbole du travail forcé colonial traduit une distorsion entre mémoire et histoire. Car il n'a été en réalité qu'une forme atténuée des pratiques antérieures beaucoup plus lourdes pour les populations. » (Frémigacci 2006: 180).  
« Quand on constate les dégâts du TCE, du TA et du MLA, on se dit que, sur le FCE, le SMOTIG a été un moindre mal en ne touchant que des jeunes non encore enracinés. » (Frémigacci 2006: 187).
- <sup>ii</sup> « Qu'a-t-on fait maintenant pour l'outillage de nos colonies ? L'effort pour l'amélioration du bien-être matériel et des conditions générales de l'existence des populations que nous amenons peu à peu à la civilisation, l'effort de colonisation des pays sur lesquels s'étend notre action, n'est pas moindre que celui que nous avons accompli dans l'ordre moral. » (Sarraut 1922: 310).
- <sup>iii</sup> « Mais l'idée d'un chemin de fer de Fianarantsoa à la mer n'en est pas moins une idée juste et rationnelle dont il faudra poursuivre la réalisation dès que les circonstances le permettront. » (Roques 1900: 22).
- <sup>iv</sup> « Common pourrions-nous donc trouver le contingent nécessaire et comment pourrions-nous le trouver sans désorganiser les entreprises agricoles et industrielles? » (Olivier 1925, *Délégation Économique et Financières*: 40).
- <sup>v</sup> « Utilisant pour son recrutement les méthodes de l'Armée, le S.M.O.T.I.G conserve dans tous ses rouages un caractère qui l'apparente aux unités militaires. » (Olivier 1931: 114).
- <sup>vi</sup> « Mais une colonie reste en <état de guerre> tant qu'un outillage médiocre, la faiblesse numérique de ses populations et leur adaptation insuffisante aux conditions de la vie civilisée la tiennent à la merci d'un krach ou d'un cyclone, d'un coup de Bourse ou d'une période de sécheresse. » (Olivier 1931: 112).
- <sup>vii</sup> « Il ne suffit pas de maintenir les travailleurs dans un état physique tel que l'effectif présent sur les chantiers soit aussi complet que possible, il faut encore se préoccuper de l'évolution morale des individus et s'efforcer de leur inculquer le goût du travail qui leur manque si souvent. » (Olivier 1927a: 2).
- <sup>viii</sup> « La formation requise pour ces deux ordres d'attributions est nettement différente: l'un exige avant tout des capacités juridiques et administratives, l'autre l'aptitude à manier des hommes et à s'occuper de détails pratiques d'organisation. » (Olivier 1927c: 6).

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<sup>ix</sup> « Le résultat recherché est d'augmenter les possibilités du rendement des travailleurs en leur inculquant les notions du rendement des travailleurs en leur inculquant les notions du respect de leurs chefs et de l'obéissance à leurs ordres, en les assouplissant aux rassemblements rapides et ordonnés par lesquels seront évitées les pertes de temps dans les camps ou sur les chantiers, lorsqu'il s'agira de distribuer les vivres ou les outils et de répartir les tâches. » (SMOTIG 1927: 45)

<sup>x</sup> « Les indigènes, qui ne savaient pas travailler parce qu'on ne leur avait jamais appris, sont rompus maintenant à la discipline des chantiers, certains se sont spécialisés et c'est ainsi que l'on peut en voir manœuvrant seuls des pelles à vapeur. » (Forgeot 1931: 3).

<sup>xi</sup> « Au vrai, les camps de travail du S.M.O.T.I.G. ne sont ni des camps d'écoliers en vacances, ni des camps de forçats. » (Olivier 1931: 119).

<sup>xii</sup> « Avec la main-d'œuvre ordinaire ou avec les prestataires, il est presque impossible de maintenir une organisation rationnelle des chantiers, car les effectifs varient journallement dans de fortes proportions. ... La régularité des effectifs du S.M.O.T.I.G., la discipline des chantiers présentent les plus grands avantages pour l'exécution des travaux. » (Olivier 1931: 122).

<sup>xiii</sup> « Il s'ensuit que l'appel du 2<sup>ème</sup> contingent portera principalement sur les régions où l'on ne doit pas travailler pour le moment du moins. Les villages de ces régions seront donc assez sérieusement dépeuplés, disons-le diminués de leurs forces jeunes et les plus effectives. » (Perrier 1927: 11-12).

<sup>xiv</sup> « Les Hovas ont un grand attachement pour leurs tombeaux; les familles mettent toutes leurs ressources à ces constructions. » (Roques 1900: 36).

<sup>xv</sup> « Certes son échec serait moins apparent que la faillite de l'œuvre sanitaire, mais le fait même que ses résultats ressortent moins nettement nous incite à une vigilance plus grande. » (Olivier 1927a : 9).

<sup>xvi</sup> « Il faut tenir compte, en effet, de ce qu'au temps de la royauté hova tous les travaux de voirie étaient exécutés par la classe servile et que les indigènes restent tentés d'assimiler à des esclaves les individus employés aux grands travaux publics. » (Olivier 1927a: 3).

<sup>xvii</sup> « Il est nécessaire de ne point se laisser développer dans les milieux indigènes, l'idée que le travailleur est le plus souvent, sinon toujours, sacrifier aux intérêts des agents chargés de la surveillance. » (Olivier 1927c: 2).

<sup>xviii</sup> « En juin 1930, tandis que la Conférence Internationale du Travail discutait à Genève, ce que l'on a appelé d'un mot impropre la question du < travail forcé > -- il serait plus exact de dire : < travail obligatoire > -- un grand journal étranger imprima tout crûment que le < S.M.O.T.I.G. > < avait fait en 1928 plusieurs milliers de victimes >. » (Olivier 1931: 103).

<sup>xix</sup> « Organiser, à long terme, la mise en place d'un système participatif (par information-sensibilisation-conscientisation), afin d'assurer la bonne utilisation, la protection des acquis de la ligne ferroviaire Fianarantsoa-Manakara. » (Statut de l'Association des Usagers 'ADIFCE' 1999: 1).