

**Aman Asefa Senbeto**

# Seasonal Flooding Vulnerability, Cause, Impact and Coping Strategies in Southern Ethiopia Urban Areas. The Case of Sawla Town

**Academic Paper**

# YOUR KNOWLEDGE HAS VALUE



- We will publish your bachelor's and master's thesis, essays and papers
- Your own eBook and book - sold worldwide in all relevant shops
- Earn money with each sale

Upload your text at [www.GRIN.com](http://www.GRIN.com)  
and publish for free



**Bibliographic information published by the German National Library:**

The German National Library lists this publication in the National Bibliography; detailed bibliographic data are available on the Internet at <http://dnb.dnb.de> .

This book is copyright material and must not be copied, reproduced, transferred, distributed, leased, licensed or publicly performed or used in any way except as specifically permitted in writing by the publishers, as allowed under the terms and conditions under which it was purchased or as strictly permitted by applicable copyright law. Any unauthorized distribution or use of this text may be a direct infringement of the author s and publisher s rights and those responsible may be liable in law accordingly.

**Imprint:**

Copyright © 2012 GRIN Verlag  
ISBN: 9783668843479

**This book at GRIN:**

<https://www.grin.com/document/449070>

**Aman Asefa Senbeto**

**Seasonal Flooding Vulnerability, Cause, Impact and  
Coping Strategies in Southern Ethiopia Urban Areas.  
The Case of Sawla Town**

## **GRIN - Your knowledge has value**

Since its foundation in 1998, GRIN has specialized in publishing academic texts by students, college teachers and other academics as e-book and printed book. The website [www.grin.com](http://www.grin.com) is an ideal platform for presenting term papers, final papers, scientific essays, dissertations and specialist books.

### **Visit us on the internet:**

<http://www.grin.com/>

<http://www.facebook.com/grincom>

[http://www.twitter.com/grin\\_com](http://www.twitter.com/grin_com)

**ETHIOPIAN CIVIL SERVICE UNIVERSITY**

**URBAN MANAGEMENT MASTERS PROGRAMME**

**SPECIALIZATION ON URBAN ENVIRONMENTAL PLANNING  
AND MANAGEMENT**

**Seasonal Flooding Vulnerability, Cause, Impact and Coping Strategies  
in Southern Ethiopia Urban Areas: The Case of Sawla Town**

**By**

**Aman Asefa**

**A Thesis Submitted in Partial Fulfillment of the  
Requirements for the Degree of Master of Art in Urban  
Management**

*Addis Ababa, Ethiopia*

*May, 2012*

## **ABSTRACT**

*Sawla town is geographically inscribed by the chains of mountain range from south to west, and from west to north. And the main town is dissected by two crossing rivers namely, 'Womba and Cholea'. Due to increasing demographic dynamics of the town accompanied by rapid urbanization, demand of land for housing is higher than that of the available recognized land under the municipal authority; hence informal settlement patterns are becoming the usual trend especially towards ecologically sensitive boundaries of the town which is characterized by mountain hill sides, sloppy forest land and gully structures and the two river plains. As a result of deforestation and impermeable coverings by construction, the capacity of the natural land feature to infiltrate and percolate rain precipitation is decreasing from time to time with the subsequent increase in surface runoff conveyed to water bodies across drainages and urban storm ways. This trend of increase in surface runoff is featuring Sawla town by seasonal flooding calamity with a serious social, economic and environmental impact especially encountered by poor vulnerable communities. Therefore the purpose of this study is to assess seasonal flooding vulnerability, cause and impact in Sawla town by then suggesting feasible recommendation to mitigate the impact of seasonal flooding on the social, economic and environmental wellbeing of the town. A descriptive research type was employed to describe the cause and impacts of seasonal flooding on vulnerable communities of the town. Reliable data have been gathered from 163 (93% response rate) randomly selected respondents founded from four kebeles (Zirko, Botre, Kera and Kusti) of the town through questionnaire, interview and observation. Based on the data obtained from the field and secondary data sets, urbanization and informal settlement, deforestation, rainfall variability as climatic change and inadequacy of infrastructure are identified causes of seasonal flooding in the town. This seasonal flooding trend produced serious social, economic and environmental damages in Sawla town.*

# Table of content

<b>Contents</b>	<b>pages</b>
Chapter One.....	1
1.1 Introduction .....	1
1.2 Background.....	1
1.3 Statement of the Problem.....	2
1.4 Research Objectievs .....	3
1.4.1 General Objective .....	3
1.4.2 Specific Objectievs of the Study.....	3
1.5. Research Questions.....	3
1.6 Significance of the study .....	3
1.7 Scope of the study.....	4
1.8 Description of the study area .....	4
1.8.1 Location .....	4
1.8.2 Demographic Data .....	5
Chapter Two.....	6
2.1 Introduction .....	6
2.2 Definitions and Concepts of Flooding.....	6
2.3 Causes of Flooding in Urban Areas .....	7
2.3.1 Urbanization .....	7
2.3.2 Deforestation .....	9
2.3.3 Climate Change .....	10
2.4 Vulnerability of People to Floods .....	11
2.4.1 A Vulnerability Framework .....	11
2.5 Flooding and its Impact .....	12
2.5.1 Economic Impact of Flooding .....	13
2.5.2 Social Impacts.....	13
2.5.3 Environmental Impact .....	13
2.6 Coping Strategies.....	14
2.7 Aspects of Flood in Urban Context .....	14
2.8 Flood Management .....	15
2.8.1Management of Urban Drainage .....	16
2.9 Flood Vulnerability, Impact and Coping Strategies in interantional perspective ...	16
2.9.1. Flooding Impact and Coping Strategy in Scotland.....	16
2.9.2 Flooding Impact and Coping Strategy in Korail, Dhaka .....	17
2.9.3. Flood Impact and Proactive measurs in Mumbai, India .....	17
2.10 Flood Disaster Profile of Ethiopia .....	18
2.10.1 Policies and Institutional Frameworks Related to Disaster In Ethiopia .....	18