

Income generation in mega-cities of tomorrow by valorising municipal solid wastes in a sustainable way

A holistic approach including adapted technologies, environmental protection, training and further education, workers protection, social, cultural and gender aspects, awareness raising, political and economic frame conditions, exemplarily for the city of

Addis Ababa

Research & Demonstration project

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- 1. Background**
- 2. Addis Ababa**
- 3. Objectives of IGNIS**
- 4. Organisation**
- 5. Actual state of the project**



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- Environmental costs of rapid growth and urbanization represents a phenomenal challenge for many cities in Africa.
 - This is particularly true in the area of solid waste management. -
- While cities are generating an ever-increasing volume of waste, the effectiveness of their solid waste collection and disposal systems are declining.
- In urban centres often less than half of the solid waste produced is collected.
- Many urban centres in Africa have parallel but separate systems that handle solid waste.
 - (a) formal, administered by the government, tends to be costly and inefficient.
 - (b) informal, involves communities of waste workers that compensate for the slack in municipal services by collecting, sorting, recycling and selling waste.



- Waste workers are often the city's most physically, socially and economically marginalised inhabitants.
- The UN Habitat Agenda clearly identifies the need for improving the living environment, particularly of the urban poor, to stimulate city development.
- Environmentally sound waste management will support significantly the implementation of the Habitat Agenda.
- The UN habitat states that the situation with respect to waste management in Africa is particularly severe.
- Since 1991, UNCHS (Habitat), UNEP, and UNECA have been developing a common position towards forging a sustainable waste management policy and strategy in Africa.



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- Addis Ababa, capital of Ethiopia, is a relatively modern fast expanding city
- Diplomacy city: headquarters of African Union and the UN Economic Committee for Africa (regional headquarters of UNDP, UNICEF, UNHCR)
- Population increase: about 6%/a
natural population growth around 2.4%/a
high migration from villages to the city
- Population is in excess of 4 million people (because of demographic uncertainties the exact number of inhabitants is not really known).
- Some sources expect Addis Ababa to come to the level of 6-8 Mio inhabitants until 2010.
- Twin City of Johannesburg



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- The rate of rural-urban migration created problems of unemployment, congestion and strains on existing inadequate social services in Addis.
- Among many urban problems, the poor solid waste management system existing in Addis Ababa is the main one of which the city population is suffering from.
- Ranking of environmental problems in Addis Ababa: waste 26.5%, sewerage (20.6%), population congestion (14.7%).
- In particular, the inadequacy of solid waste management is exacerbated in slums.
- Lack of the most basic solid waste services in crowded, low-income neighbours is a major contributor to the high morbidity and mortality because of pests transmitting heavy diseases.
- Negative effects on productivity and economic development of the city are expected.



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- Current daily waste generation in Addis Ababa is about 1,000 tons/day (0.25/ capita/day).
- Of the total waste generated per day 65% is collected. The remaining 35% of the waste is disposed off on open sites, drainage channels, rivers, valleys, and on the streets.
- Such discriminate dumping of wastes is polluting the surface water being the main water resource, and shallow groundwater with heavy metals, toxic ions making it unusable by people down-stream.
- Therefore handling waste problems will subsequently have positive effects on the water protection and public health.
- But, the management approaches, methods and techniques employed in waste management are still inadequate.



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General objectives of the action-oriented R&D project IGNIS :

- create income generation, especially for marginalised groups and strengthen the social status of people working with wastes
- valorise MSW as far as possible under the principle of sustainability linking economical, ecological and social objectives.
- evaluation of measures to valorise MSW
 - “why are measures successful or failing”
 - “what can we learn from past and present”
- continuously improvement of “measures” on scientific basis
- evaluation of effects coming from or resulting on all stakeholders involved in a “measure”



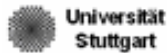
In detail

- With view on practicable, financeable and environmental sound waste management
 - process specific and technical knowledge, e.g. adapted technologies for waste treatment and recycling will be identified, evaluated and introduced with pilot projects
 - measures/technologies will be developed and continuously improved by scientific accompanying of the pilot projects.
- To develop and introduce measures for workers protection (health & safety aspects) and their scientific analysis.
- To initiate the technical and management education in a waste management training centre.
- To communicate the project results through a waste management competence centre.





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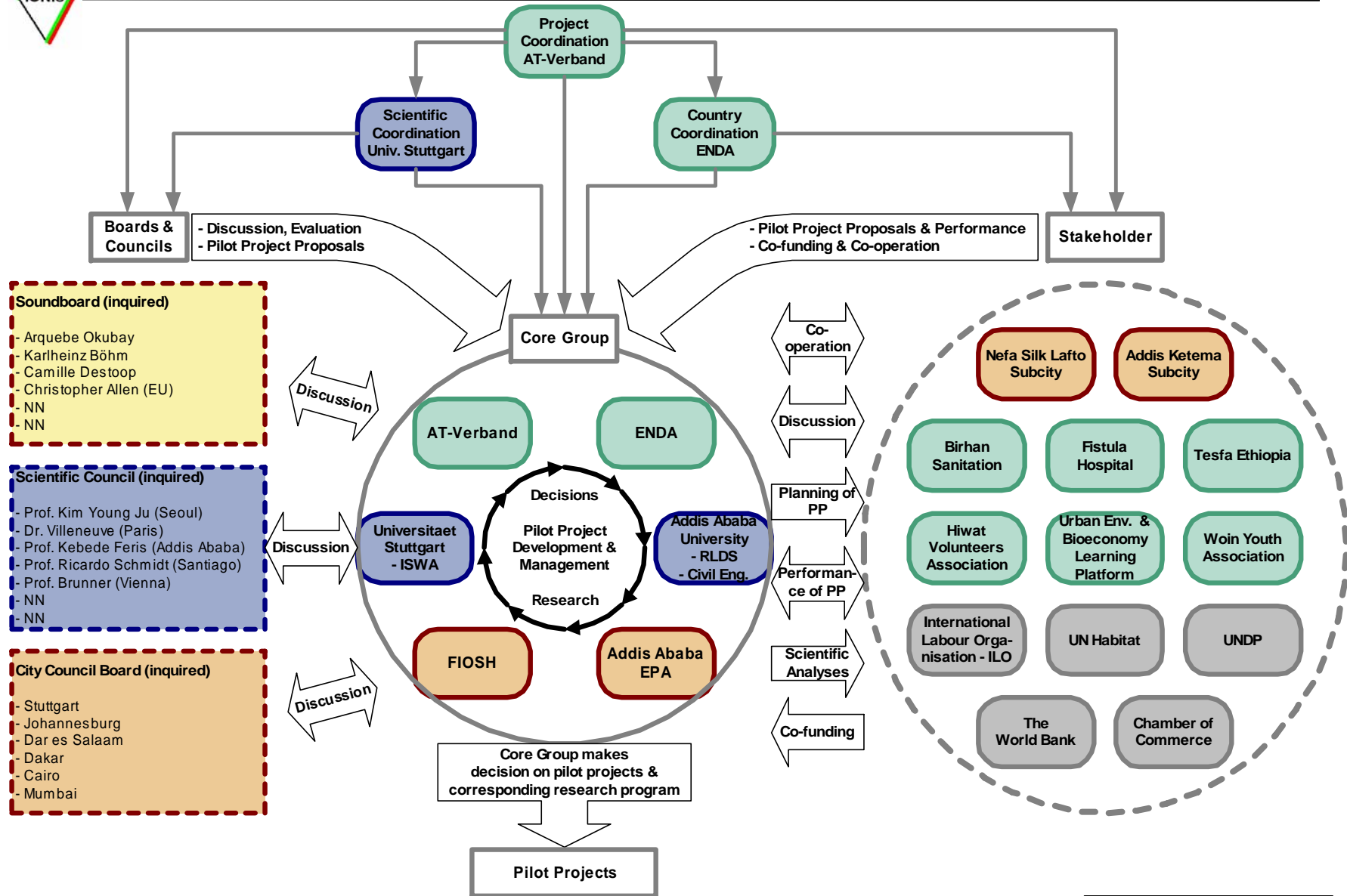
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Actual state of the project

- First meeting in Addis Ababa with partners and local stakeholders in September 2005
- Until now 3 follow-ups
- Information and data collection already started
- Search for additional partners already started
 - Core group
 - Stakeholders
- Identification of a first possible pilot activity (with EPA)
- Additional proposal for first pilot project
- Development of the IGNIS Homepage: www.p-42.de/ignis



IGNIS – Income generation in megacities of tomorrow by valorising MSW in a sustainable way

IGNIS - Microsoft Internet Explorer

Adresse http://www.p-42.de/ignis/front_content.php

WebFilter

Home

- The idea
- Addis Ababa
- IGNIS Project
- Project partner
- Contact

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IGNIS is a research and demonstration project of the German Federal Ministry of Education and Research (BMBF) under the funding program "Research for the Sustainable Development of Megacities of Tomorrow" of the Federal Republic of Germany (run-time Pre-phase 01.07.2005 - 30.09.2007)

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Addis Ababa means “New Flower“

We accept the challenge !

