



Integrating Climate Change Adaptation Tools in an SEA: Lessons learned in Mali

IAIA Special Symposium on Climate Change and Impact Assessment
Washington, D.C.
November 15-16, 2010

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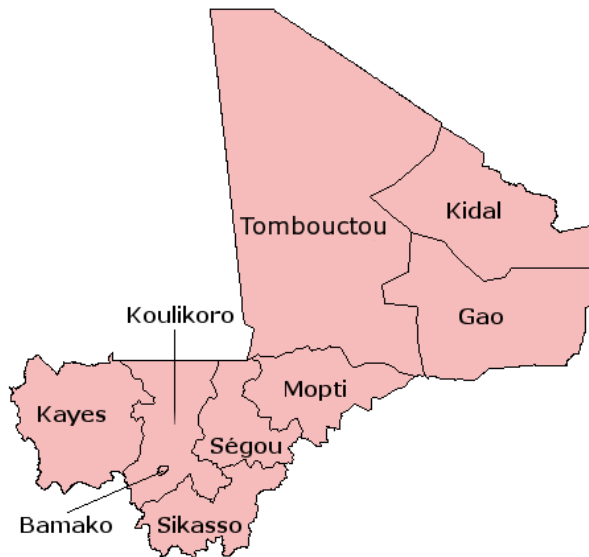
Content

- Introduction
- The SEA of the National Program for Small-Scale Irrigation
- Integrating Climate Change tools in the SEA
- Lessons learned





Basic information about Mali



- Western African country with 14 million inhabitants (LDC-country)
- Landlocked country situated in the Southern Sahara
- Environmental challenges in Mali: desertification, deforestation, soil erosion, water management
- German Development Cooperation supports a.o. the Ministry of Environment and the Ministry of Agriculture



The National Program of Small-Scale Irrigation (PNIP)

- Objectives of the PNIP:
 - strengthening agricultural productivity
 - supporting food security
 - mitigate poverty

- Responsible institution: Ministry of Agriculture of Mali



The SEA of the PNIP

- Objectives of the SEA:
 - fostering ecological sustainability of the PNIP
 - strengthening the governance of the PNIP

- Responsible institution: Ministry of Environment

- Implementation: expert team under supervision of a national steering committee (also: one CC expert)

- Characteristics of this SEA:
 - First „Malian“ SEA (ownership)
 - consistent with OECD standards
 - integration of climate change adaptation instruments

- Timeframe: July 2009 – June 2010



Adaptation to CC in Mali using “Climate Proofing for Development”

- Demand for support in adaptation to CC in Mali by political stakeholders and government bodies, donor community and NGO
- Different tools and methods for « mainstreaming adaptation » exist and are known in Mali
- “Climate Proofing for Development” developed by GTZ chosen because it is a participatory tool, easy to understand and doesn't need computer facilities or knowledge



Stages of SEA as applied in Mali

| Stage | Action |
|---------------------|---|
| 1 | Identification of the position of SEA in the planning process; identification of stakeholders & parties involved |
| 2 | Definition of Challenges |
| 3 / 4 | Analysis of baseline conditions and their trends; analysis of generic effects of PPP on the Challenges identified; analysis of alternatives & of the development without the SEA approach |
| 2 - 5 | Consultation of involved parties |
| 5 | Preparation of the Framework of Environmental and Social Management (PCGES) |
| 6 (occasionally) | <i>Proposal of plans or actions to monitor the recommendations</i> |



Steps followed by the tool Climate Proofing for Development (CP4Dev)

- Step 1– Preparation: collecting of climate information and defining exposure units
- Step 2 – Analysis: identification of bio-physical and socio-economic effects of climate trends on each exposure unit
- Step 3 – Development of adaptation options
- Step 4 – Integration into the plan



The SEA and CP4Dev outline within the PNIP

| Stage | Minor Stage | Time (in days) | Relevant People |
|---|--|---|---|
| 1. Data collection and adaptation of Challenges | Consultations in different regions | 30 (extension of intervention zones of the project or programme) | Assigned consultants |
| | 2.1 Definition of predictable climate changes (climate stimuli) | 1 (starting from existing climate scenarios) | CC consultants |
| 2. Analysis of CC effects relevant for the project | 2.2 Identification of Exposure Units | 1 (field research, data collection) | All consultants (through reports, including CC consultants) and SEA-PNIP-coordinators |
| | 2.3 Determination of biophysical and socio-economic effects | | All consultants (through reports, including CC consultants) and SEA-PNIP-coordinators |
| | 3.1 Definition of links to the project | 1 | |
| 3.2 Evaluation of the probability and pertinence of the effects | | | |
| 3.3 Formulation of adaptation options | 1 | | |
| 3. Development of adaptation options | 3.4 Hierarchical classification of adaptation options | 1 | |
| | | | |
| 4. Integration of results into PNIP | This exercise will be carried out in the monitoring process of the PCGES | 3 (because of a high number of adaptation options) | |



Climate Proofing for Development within the SEA of the PNIP: example of obtained results

| Climatic Trend | Exposure Unit | Bio-physical effect | Socio-economic effect | Relevance for planning | Options for action |
|---|-----------------------|--|---|---|---|
| Increase in temperature Decrease of precipitation Accentuation of meteorological extremes | Irrigated agriculture | Disturbed agricultural cycle: Decrease of harvest | Decrease of income of farmers food insecurity | High probability of occurrence Direct link to objectives of PNIP | Measures concerning water usage efficiency Promotion of seeds and technologies adapted to new environmental conditions |
| | Livestock breeding | Appearance of vermin Decrease of drinking water | Decrease of animal products (milk, meat...) and income of farmers | Middle probability of occurrence Direct link to objectives of PNIP | Utilisation of (current and future) water availability as criterion in the choice of sites Water stockage Vaccination |



Results of the SEA and CP4D

- Identification of measures for mitigation of environmental risks and CC adaptation
- Development of a management plan for the implementation of technical and institutional measures within the PNIP
- Clarification of the roles and strengthening of cooperation between different stakeholders
- CP4D promoted by the Ministry as a tool for integration of CC into development in Mali (mainstreaming of CC aspects also tested by the government in sectoral Investment programs and at the local level)



Lessons learned

- Because of the complementary and flexible character of both approaches, the integration of CP4Dev into SEAs is entirely feasible
- It has proven helpful for clarity of processes and simplicity to subsume the CP4Dev methodology under the SEA approach
- The stages of CP4Dev should be integrated early into the planning process of SEA
- The determination of Exposure Units and the definition of the SEA Challenges should be synchronised
- Participation: identified CC risks, exposure units and adaptation measures should be validated in a national workshop
- Identified measures to be implemented and monitored related to the environmental assessment and the climate proofing should be integrated in one sole action plan



Partner Network

- Ministère de l'Environnement et de l'Assainissement (MEA)
- Secretariat Technique Permanent pour la Gestion des Questions Environnementales (STP/CIGQE)
- Direction Nationale pour l'Assainissement et la contrôle de Pollution et des Nuisances (DNACPN)
- Direction Nationale des Eaux et Forets (DNEF)
- Coalition « Gestion Durable des Terres (GDT) » au Mali
- Projet d'Appui au Sous-secteur d'Irrigation de Proximité (PASSIP)
- Projet d'Appui aux Collectivités Territoriales (PACT)
- GTZ Climate Task Force (GTZ, Eschborn)
- Convention Project to Combat Desertification (GTZ, SV CCD, Bonn)
- Project RioPlus (GTZ, Bonn)



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Thank you for your Attention!