

ANNUAL REPORT



Centre d'Actions pour l'Environnement et le Développement Durable

www.aced-benin.org

2016

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Key achievements in 2016



In 2016, 371 tons of compost have been produced from 630 tons of water hyacinth collected.



Improvement in the harvesting technique has reduced the collection challenges and increased the collected quantity by 39%.



The optimal utilization dosage of water hyacinth compost used by gardeners has been defined for pepper, tomato and amaranth.



An action research project has been launched on the development of allotment gardens for the improvement of food security in urban areas of Benin with a funding of 312,000 Euros (204 million CFA Francs) from the Global Challenges Program of the Netherlands Organization for Scientific Research.



ACED has received the FICAD award from The African Capacity Building Foundation.

Our activities in 2016

Compost from water hyacinth for healthy agricultural products

Improving the harvesting technique of water hyacinth

A CED continued the implementation of the project on improving agricultural production through water hyacinth composting. In 2016, gardeners have collected 630 tons of water hyacinth, which enabled the production of 371 tons of compost. However, one of the obstacles for improving compost production was that hyacinth collection required a huge amount of labor. An alternative technique based on towing the heap

of hyacinth using easily obtainable nets has been successfully tested by the gardeners. The test has proved that this new technique increases the quantity of water hyacinth collected by 39% and reduces the difficulties, health threats and drowning risk that the gardeners were exposed to while using the old technique. The growers appreciate and have subsequently adopted this technique that allows them to collect more hyacinth and to intensify the compost production.



Market gardeners pulling a heap of hyacinth

Improvement of utilization of water hyacinth-based compost

Compost produced with water hyacinth was not adequately used by gardeners for soil fertilization due to a lack of technical guidelines suitable for this kind of compost. In 2016, an applied research study has been conducted with the gardeners to define the agro-ecological guidelines that would optimize the yield of three products – tomato, pepper and amaranth. Three technical factsheets have been elaborated and disseminated to

gardeners. The key finding of this study is that the yields of the agricultural crops (in particular tomato, pepper and amaranth) are directly proportional to the quantity of compost applied. The optimum dosage recommended for the fruits (such as tomato and pepper) is 20 grams per plant. For leafy vegetables (especially amaranth), the dosage that gave the best results was 30 grams per plant, but the optimum dosage was not determined.

Peppers produced using water hyacinth compost



Improvement of the marketing of healthy fruits and vegetables produced with compost

Due to a significant number of middlemen, gardeners are not making enough profit from the marketing chain. For that reason, a multi-stakeholder discussion has been organized to simplify the marketing chain. This has led to the creation of a sales point at the Akassato market in order to shorten the marketing chain for gardeners, so that they can make more profit. To support

the operations of the sales point, an advertising campaign has been implemented to promote the healthy products marketed by the gardeners at the sales point. Besides this, gardeners have been trained on marketing techniques and strategies based on a survey conducted on consumers' expectations and needs.



Group work during marketing training of gardeners

Development of a pilot phase for biogas production

In 2016, ACED has launched the second phase of the project for biogas production from household bio-wastes and water hyacinth. The aim of this particular phase is the installation of a pilot unit to implement the recommendations from the technical-economic feasibility study on biogas

production. For this purpose, beneficiaries of the pilot stage have been chosen, and a site has been selected for the installation of the bio-digester. During this pilot stage, which will be executed on the site of Gbéssou in Sô-Ava, 17 households will benefit from this innovation.

Improvement of inland fishing resilience in South Benin

ACED is implementing a project to improve the resilience of inland fishing communities and aquatic systems against the degradation of water resources in Benin. The studies launched in 2015 have continued, especially those realized by the Hydrobiology and Aquaculture Laboratory of the University of Abomey-Calavi on the potential capacity of the inland fishing sector and the impact of degradation of water resources on potential fishing

production. Furthermore, the Amsterdam Centre for World Food Studies is analyzing the data collected in 2015. A stakeholders' meeting was organized to share and exchange information about the project. The meeting was attended by members of the multi-stakeholders' committee representing different interested parties to keep them informed about the project's progress and get their feedback and contributions for better planning of future activities.

Improvement of urban food security through allotment gardens

Food insecurity in urban regions is a serious development challenge in sub-Saharan Africa in general, and especially in Benin. In this context, in July 2016, ACED has launched a project to improve urban food security through the development of allotment gardens in Benin's cities. The project

aims at setting up an integrated framework for the development of allotment gardens, providing the poor urban population with access to fresh food, a shelter for women, and additional income to support their basic needs. With a grant amounting to 312,000 Euros (204 million CFA

Frans) from the Food & Business Global Challenges Program of the Netherlands Organization for Scientific Research, this project is implemented by the Amsterdam Centre for World Food Studies, ACED and the Faculty of Agricultural Sciences at the University of Abomey-Calavi. It is expected that the project will provide evidence based information to support the agricultural policies in Benin that would create

an enabling environment for the development of allotment gardens. The project has been launched during a workshop that gathered all the interested parties involved in urban agriculture in Benin. After the project was launched, an exploration of the sites that could host the pilot allotment gardens in the cities of Cotonou and Porto-Novo has been initiated.



Family picture of the inception workshop of the project entitled improving food security through allotment gardens

ACED is among the 3 African laureates for the ACBF FICAD award

ACED has received one of the 3 awards given in 2016 by The African Capacity Building Foundation (ACBF) within its program « Funding Innovative Capacity Building Initiatives (FICAD) ». In this context, during the 3rd Pan-African Forum on Capacity Building held in Harare, Zimbabwe, ACED has signed the funding agreement with ACBF to carry out a project on youth capacity building in agribusiness in Benin. This project proposes a catalytic approach by providing evidence

based information and resources to reduce the knowledge gap and, thus, to successfully engage young people in the agricultural sector. For this purpose, the project will make an analysis of young peoples' profiles, determine the most profitable positioning for young people in the agricultural value chains and develop a manual on agricultural entrepreneurship and business skills for young people involved in agriculture, with key political recommendations that will be shared with all stakeholders.



The Director of Programs at ACED receives the FICAD Prize

Publications and presentations

- Weissenberger S., Lacoste-Bédard É., Thoto F., Chouinard O., 2016. Climate change impacts and adaptation in coastal communities in Ouidah and Grand-Popo, Benin and the Saloum Delta, Senegal. Coastal Zone Canada 2016, June 12-14, Toronto, Ontario.
- Houessou, D. 2016. Mobilisation des ressources du secteur informel: Initiatives, défis et possibilités. Participation au 3ème Forum de l'Afrique pour les Résultats sur le thème: Mobilisation des Ressources Intérieures pour la transformation de L'Afrique. Nairobi, Kenya.
- Weissenberger, S., O. Chouinard, É. Lacoste-Bédard, A. Kane, F. Thoto, 2016. « 4.7 Adaptation des zones côtières aux changements et à la variabilité climatiques au Sénégal et au Bénin un échange des expériences Canadiennes et Africaines. » dans S. Weissenberger, O. Chouinard (sous la dir. de) Adaptation aux changements climatiques et à l'augmentation du niveau de la mer en zones côtières – une perspective globale <http://bit.ly/2k0wR9w> (in French <http://bit.ly/2jShoGo>).



ACED at the Third Africa for Results Forum

Conferences and workshops

Participants during the inception workshop of the project entitled Improving food security through allotment gardens



- 3 to 5 May 2016, Harare (Zimbabwe). 3rd Pan-African Forum on Capacity Building and the 25th anniversary of the African Capacity Building Foundation on the theme: Developing Capacities for Africa's Economic and Social Transformation.
- 31 May to 1 June 2016, Ouagadougou (Burkina-Faso). A knowledge sharing meeting on Managing for Development Results (MfDR) and regional policies organized by the African Community of Practice on Managing for Development Results (AfCoP-MfDR) in partnership with the West African Economic and Monetary Union (WAEMU).
- 13 to 15 July 2016, Nairobi (Kenya). 3rd Africa for Results Forum on the theme: Domestic Resources Mobilization for Africa's Transformation organized by the African Development Bank and the African Capacity Building Foundation.
- 31 August to 2 September 2016, Dakar (Senegal). Training and networking youth event for results, organized by the African Development Bank.
- 18 to 20 October 2016, Limbé (Cameroon). PPI Forum 2016: 10 years of small initiatives to protect the environment in Africa, organized by the International Union for Conservation of Nature (IUCN – French Committee) and the French Global Environment Facility (FFEM).
- 28 November 2016, Porto-Novo (Benin). 2nd edition of the workshop co-organized by the Federation of Producers' Unions (FUPRO) in collaboration with the Agri-Business Center (ABC), AgriProFocus, on the sharing of business ideas around technologies being disseminated as part of the project to improve utilization of research results (PURRA).
- 29 November to 1 December 2016, Ouagadougou (Burkina-Faso). A conference on the cereals trade in West Africa on the theme: how to structure the cereals trade in West Africa: which market instruments and what public policy measures? The conference was organized by the Technical Center for Agricultural and Rural Cooperation ACP-UE (CTA), the Network of Farmers' and Agricultural Producers' Organisations of West Africa (ROPPA), the West African Cereal Producers Network (ROAC) and the African Rural and Agricultural Credit Association (AFRACA).
- 13 to 16 December 2016, Cotonou (Benin). A week of Managing for Development Results (MfDR) organized by the Beninese Community of Practice on Managing for Development (CoP-MfDR) with the support of the African Development Bank in partnership with the African Capacity Building Foundation.

Perspectives for 2017



A market gardener in Cotonou waters his plots of lettuce

Execution of year 4 of the Strategic Plan

In 2017, ACED will continue with the implementation of its 2014–2018 Strategic Plan. The center will also continue the current projects and will simultaneously strive to propose and implement some innovative solutions to the problems that smallholders, farmers and vulnerable agricultural populations are facing. Also, during this year, it will work on expanding and strengthening the existing partnerships.

Execution of the pilot phase of the production of water hyacinth-based biogas

In 2017, the activities concerning the implementation of the pilot phase for production of water hyacinth based biogas will continue. During the first half of the year, the biogas unit will be built and installed. During the following six months, the project will be executed and evaluated in terms of the impact gained. At the end of the year, the obtained results will enable the authorities to decide about the replication and up-scaling of the innovation.

Improvement of the marketing of agricultural products based on water hyacinth compost and capitalization of the generated knowledge

In 2017, ACED will continue to work on the marketing of produce cultivated with water hyacinth based compost. This year will also be marked by the results capitalization of the project: knowledge products will be elaborated, and a workshop will be organized for presenting the results and success stories.

Reduction of the knowledge gap in order to build the capacities of young people in agribusiness

In 2017, ACED will be working on youth profiling and determining the most profitable positioning within agricultural value chains. A market analysis of three important agricultural value chains will be performed, and a manual on agricultural entrepreneurship and business skills for young people will be developed.

Improvement of the resilience of inland fishing in South Benin

The activities of this project will continue during 2017, which consist of analyzing the collected data, conducting a survey among the leaders of fishing communities, and gathering the first results of the project. Besides this, the project team will be trained on the analytics techniques. Research documents and policy briefs will also be developed. Furthermore, workshops on the regulations of water resources for inland fishing and extension materials for improved techniques will be organized.

Development of community gardens in cities of South Benin

Within this project, ACED will analyze the relationship between urbanization and food security. Also, a tool for the optimal selection of sites for the development of allotments gardens in urban areas will be developed for the placement of two pilots of allotment gardens. A training and a baseline survey will be performed among the participants of the allotment gardens, and the monitoring of these gardens will subsequently follow.

Partners in 2016

Amsterdam Centre for World Food Studies

Applied Research Fund of the Netherlands Organization for Scientific Research

French Committee for International Solidarity

School of Economics, Sociology, Anthropology and Communication of the Faculty of Agricultural Sciences

EREP-SA

Foundation of France

African Capacity Building Foundation

Veolia Foundation

French Global Environment Facility

Gevalor

Global Challenges Program of the Netherlands Organization for Scientific Research

Institute of Environmental Sciences of the University of Quebec in Montreal

Laboratory of Hydrology and Aquaculture of the University of Abomey-Calavi

Renewable Energy and Energy Efficiency Promotion in International Cooperation

Municipal Sector for Agricultural Development (Sô-Ava, Cotonou, Porto-Novo and Aguégués)

The Hunger Project – Benin

International Union for Conservation of Nature – French Committee



About ACED

The Centre d'Actions pour l'Environnement et le Développement Durable (ACED) is a not for profit organization focused on action-research which is working on food security and nutrition. ACED develops in 2013 a 5-year strategic plan (2014 – 2018) which orientates its actions.

Vision: ACED seeks to be a leading institution in empowering agricultural communities for increased food security and poverty reduction.

Mission: To improve food and nutritional security in Benin in a sustainable environment.

Our programmes

- Agriculture & Food Security: To support small-scale farmers for a more profitable agriculture.
- Climate change: To support vulnerable communities in coping with climate change.
- ICT for Agriculture: To promote the use of ICT for agricultural development.

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