

EX-ACT Newsletter n°12



January - December 2014

EX-ACT appraisal of the IFAD Adaptation in Smallholder Agriculture Programme (ASAP)

Recognizing the strong potential for synergies between adaptation and mitigation actions in smallholder agriculture, the EX-ACT team was jointly engaging with CCAFS in an analysis of 13 IFAD projects supported through the [Adaptation in Smallholder Agriculture Programme](#)

(ASAP). This major stream of work allowed to derive a typology of investment projects with different combined impacts in climate change mitigation and adaptation terms. Different country contexts require divergent mixes of e.g. natural resource rehabilitation versus stronger cro-

pland intensification focussed approaches. The comparative analysis allowed to make targeted propositions where a stronger integration of mitigation and adaptation actions could be achieved with moderate increases in project costs.



WB regularizes the use of EX-ACT for AFOLU project appraisals

Following the 2012 decision by International Financial Institutions to systematically engage in project GHG accounting and to harmonize their technical approaches, the World Bank started in 2014 to systematically screen their investment projects from

the Agriculture, Forestry and Other Land Use sectors for the necessity to be assessed for their impacts on the Carbon Balance using EX-ACT. This is an important step towards the structural consideration of climate change mitigation aspects as part of

agricultural investment planning by international institutions.



The ARB division of AFD uses EX-ACT for their project appraisals

Agence Française de Développement (AFD) is a key public operator in France's cooperation mechanism. AFD has the clear objective to promote sustainable economic, social and environmental development trajectories. AFD has a mandate that combines the fight against poverty, sustainable development and the [fight against climate change](#). In line with its climate strategy, AFD has established a systematic procedure to

assess the carbon footprint of the projects it finances in developing countries, using a standardized methodology, which is available on AFD Group's website, as well as an ad hoc calculation tool. In this aim the Agriculture, Rural Development and Biodiversity (ARB) division is implementing this systematic appraisal of their projects using EX-ACT. Moreover AFD developed in collaboration with the French Research

Institute for Development (IRD) a quick guidance in French that provides a well-founded and concise overview of methodology, data needs, application and final use of EX-ACT. It is downloadable on the [EX-ACT website](#). In collaboration with the climate change division (CLI), an EX-ACT training was delivered by IRD to project leaders at AFD headquarters in October 2014.

In this Newsletter

EX-ACT TOOL DEVELOPMENT	2
EX-ACT APPRAISALS AND CLIMATE RESILIENCE ANALYSES	2
EX-ACT TRAININGS	4
EX-ACT CONFERENCE PARTICIPATIONS	5



Quick Guidance to use EX-ACT now available in [French](#) and in [English](#)

EX-ACT Tool Development



Screenshot of the EX-ACT tool

Multilingual version of EX-ACT developed

At the beginning of 2015 a multilingual version of EX-ACT will be released. While further languages will be added at a later stage, the tool will directly be available in the **UN Languages** Arabic, Chinese English,

French, Russian and Spanish, and in the **Non UN Languages**, Portuguese and German.

The availability of the tool in various languages intends to

facilitate the easier uptake for national policy planning as well as the easy sharing of EX-ACT results within government institutions.

New EX-ACT functionalities: Fisheries, aquaculture and mangrove forests

Mangroves, tidal marshes and seagrasses have the capacity to sequester and store large amounts of carbon in biomass and soil. At the same time mangroves are one of the most threatened ecosystems because of unsustainable forest management and conversion of land use to aquaculture (e.g. shrimp ponds and fish farms). Both drivers account respectively for 26% and 52% of losses in mangrove area. On a global scale up to 3% of the remaining mangroves are lost every year, resulting in significant releases of carbon to the atmosphere.

Coastal ecosystems provide however many valuable services for climate change mitigation and adaptation, while also being an essential basis for the livelihood of the coastal population.

Currently a new blue carbon module is being developed for EX-ACT that will allow quantifying the resulting GHG impact from land use management and change of mangroves (deforestation, extraction, drainage, rewetting...). Furthermore the GHG emissions related to aquaculture

production and the fisheries sector will be new aspects that can be estimated by the tool, e.g. via the use of feed in fish farms and high fuel consumption for fishing activities. Similar to the already existing modules within EX-ACT, the new module will provide a Tier 1 approach that is largely based on factors from the IPCC, while Tier 2 emission coefficients can be specified by users that possess more regional specific emission factors.



« EX-ACT will allow quantifying the resulting GHG impact from mangrove forest and aquaculture »

EX-ACT Appraisals and Climate Resilience Analyses

EX-ACT Analyses of GEF supported World Bank Sustainable Land Management projects in Eastern Europe and Central Asia

A series of EX-ACT missions to Albania, Bosnia-Herzegovina, Kazakhstan and Tajikistan allowed to provide a combined package of Carbon balance appraisals, EX-ACT trainings, support to the design of carbon monitoring systems and to assess options for Payment Systems of Environmental Services, PES.

In **Albania**, the Environment Services Project (ESP) was appraised for its overall impact on GHG emissions and carbon sequestration. The ESP was designed to support sustainable land management practices with the aim of reducing human-induced land degradation, and increasing communities' income in targeted project areas prone to

erosion. The appraisal underlined conditions and impact strength of project actions on the carbon balance, while also assessing the impact of the project on other forms of natural capital that were taken as the basis of payment scenarios for the provision of environmental services. [Report available on the EX-ACT website.](#)



In Albania, the ESP focused on areas prone to erosion

In Bosnia-Herzegovina, the Sustainable Forest and Landscape Management Project targets the capacity building of forestry sector stakeholders and intends to demonstrate approaches for sustainable forest and land management. As part of the EX-ACT project appraisal the project team assessed possible options to integrate EX-ACT carbon monitoring indicators as part of the forest management information system that is under development as a part of the project. This would allow developing a refined, tier2-based monitoring system of carbon impacts using EX-ACT. [Report available on the EX-ACT website.](#)

In Kazakhstan, the Forest Protection and Reforestation Project for Kazakhstan is targeted to develop cost effective and sustainable environmental rehabilitation measures and management of forest lands and associated rangelands with a focus on the Irtysh pine forest, the dry Aral Seabed, and saxaul rangelands. The EX-ACT team supports the combined use of a Carbon Balance appraisals, expert trainings and support to integrated carbon monitoring using GIS. [Report available on the EX-ACT website.](#)

In Tajikistan, the Environmental Land Management and Rural Livelihoods Project (ELMRL) started in early 2014,

with the objective to enable rural people to build their productive asset base in ways that sustainably improve natural resource management and build resilience to climate change. The project especially focuses on sites that experience a strong frequency and vulnerability to weather related shocks. Beside participatory focus groups and related training measures to identify adequate indicators for project M&E framework, a main issue as part of this early appraisal was to decide to which extend also carbon impacts of selected micro project components should be monitored throughout implementation. [Report available on the EX-ACT website.](#)

« The EX-ACT team supports combined C balance appraisals, expert trainings and support to integrated C monitoring using GIS. »

A Kyrgyzstan partnership project for improving the resilience of the agriculture sector

The EX-ACT team supports the preparation of a FAO project to improve the capacity to manage climate related hazards and disasters through building climate resilience of the agriculture sector. The project is foreseen to start by building a common platform

for climate resilience. Such a platform will be used to:

- Raise awareness for enhancing resilience to climate shocks through stakeholder mobilisation and training of policy makers and farmers representatives,

- Support the integration of climate resilience into agriculture and food security policies,
- Promote climate resilience building options at community level through project appraisal and monitoring using landscape and household resilience indicators linked to food security.

In Haïti, a synergetic impact between climate change mitigation and preservation of natural capital

In July 2014, the project "Sustainable Management of the Limbé Watershed and Environmental Services from Agriculture in Northeast Haïti" carried out by [Agrisud International](#) and its Haitian partner organization Gradimirh was appraised. The main aims of the project are the sustain-

able development and the enhancement of the Limbé watershed in Haïti, while taking into account the fight against poverty, the development of agricultural activities and the protection of natural resources. A preliminary study was conducted in cooperation with the State University of

Haïti (Port au Prince). The first estimates show that the implementation of the project compared to an alternative baseline scenario, leads to a net carbon sequestration, with a net balance of 22,437 tCO₂-eq concerning 400 ha over 20 years. [A report is on the EX-ACT website.](#)



Limbé watershed in Haïti



Micro level appraisals of pro-poor climate adaptation and mitigation success stories

FAO and the French Research Institute for the Development, IRD, engage in a partnership to capitalize agroecological and Climate-Smart Agriculture (CSA) field success stories and to assess their multiple benefit performance using adequate

indicators. A series of micro level interviews with farmers and field implementation actors will be carried out to appraise the cost benefit impact of improved practices at field level. Results will be used to develop guidelines for the

scale-up of targeted experiences in future projects and policies.



EX-ACT Trainings

Niger, AGRHYMET, February 2014

In cooperation with AGRHYMET and Salva Terra, an EX-ACT training was carried out as part of the second training workshop for West African (CILSS) carbon project developers in the AFOLU sector. The workshop focused on

“Opportunities from the Clean Development Mechanism and voluntary carbon markets for project developers in the AFOLU sector” and allowed project developers to analyse their project concept notes for mitigation impacts using EX-

ACT. The 17 workshop participants covered the countries Benin, Burkina Faso, Ivory Coast, Gambia, Guinea Bissau, Mali, Mauritania, Niger, Sénégal, Liberia and Chad.



AgrhyMET a regional center of the Permanent Interstates Committee for Drought Control in the Sahel (CILSS)

Malawi, Zambia, Viet Nam - February/March 2014

As part of the FAO Programme Economic and Policy Innovation for Climate Smart Agriculture (EPIC) three capacity building workshops on the use of EX-ACT were conducted in Malawi, Zambia and Viet Nam. The measure targeted main country stakeholders from national con-

sultation groups on Climate Smart Agriculture that were established under EPIC. The workshop allowed participants to acquire a first capability of using the tool at Tier 1 complexity and practically apply it for the quantification of mitigation benefits of national

policy scenarios. In all three countries this linked to existing policy priorities that were analysed during the workshop.



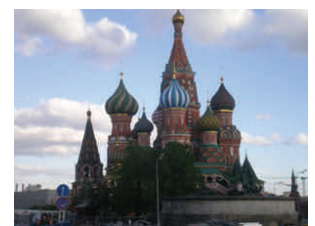
« ...an opportunity to plan the further upscale and back-stopping of EX-ACT analyses within World Bank operations. »

Brazil, Russia, United States - March, April & June 2014

Building on the long lasting EX-ACT partnership with the World Bank four additional training workshops were carried out this year in Washington (x2), Moscow and Brasilia. As part of the ongoing process to institutionalize the use of EX-ACT within the project cycle, WB-Technical Team Leaders at headquarters

and regional offices were given the opportunity to familiarize themselves with the practical use and methodology of the tool as well as the overall process and purposes of a Carbon Balance Appraisal. The workshops also offered an opportunity to plan

the further upscale and back-stopping of EX-ACT analyses within World Bank operations.



EX-ACT Conference Participations

FAO/CCAFS Workshop - Rome, Nov. 2014: Reducing Costs of GHG Estimation in Agriculture to Inform Low Emission Development Options

Over 60 participants from ministries, national research institutions and academia attended an international workshop on GHG emission estimates for agriculture, including modelling, field measurements as well as low-cost assessment tools. The workshop allowed to fruitfully confront and link the currently

available techniques for deriving mitigation estimates with the needs from policy and practice in developing countries. EX-ACT was presented in its functionality to provide low-cost estimates of development policies and projects and compare alternative scenarios to inform decision making at the national or regional level.

The workshop was a collaborative effort by the FAO Mitigation of Climate Change in Agriculture (MICCA) Programme and the CGIAR Research Program on Climate Change, Agriculture and Food Security (CCAFS). [Report available on the FAO website.](#)



FAO building in Rome

FAO Symposium on Agroecology - Rome, Sept. 2014

EX-ACT participated to the [FAO Symposium on Agroecology for Food Security and Nutrition](#) that was held at FAO headquarters under the participation of leading international scientists as well as the French Minister for Agriculture, Stéphane Le Foll. The Sympos-

ium underlined the importance of an integrated approach to farming systems that consider the multiple outcomes of farming practices such as on nutrient and energy balances, soil health, biodiversity and pest management. An EX-ACT poster presentation un-

derlined the strong link between closed nutrient and energy cycles as well as adequate soil carbon management with climate change mitigation in agriculture.

Agroecology for Africa Conference - Madagascar, Nov. 2014

The EX-ACT team presented its recent work on agroecological policy options at the conference "[Agroecology for Africa. Agroecology and Sustainability of Tropical Rainfed Cropping Systems.](#)"

The conference was organized for the critical analysis of

agro-ecological technologies, innovative cropping systems and land management strategies benefiting small-scale agriculture in Africa. A particular interest of this conference was the comparison and up-scale of promising agro-ecological technologies and their impacts within small-scale

farming systems. The EX-ACT team presented a review of recent policy experiences within four different country contexts concerning "Policies and tools for the upscale of agroecological agriculture in family farming systems".



Participants in the AfA conference

The 2nd Brazilian BioEnergy Science and Technology Conference, Oct. 2014

In collaboration with the [Brazilian Bioethanol Science and Technology Laboratory](#) an oral communication was presented at the occasion of the [2nd Brazilian BioEnergy](#)

[Science and Technology Conference](#) in October 2014. This communication focused on greenhouse gas emissions from direct land use change in sugarcane expansion in São

Paulo state using both Tier 1, Tier 2 and even Tier 3 emissions factors and field measurements.

EX-ACT *EX-Ante Carbon balance Tool*



The FAO-EX-ACT team supports carbon balance appraisals of agriculture and forestry projects all over the world.

Please contact us by email if you are interested in organizing a training workshop for using the tool within your organization and visit our website for further information.

Any feedback concerning ongoing applications of EX-ACT by external users (sharing of results, suggestions for improvements, clarification questions, etc.) are very welcome for the continuous improvement of the EX-ACT tool!

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Examples of publications citing EX-ACT

- ♦ « **Soil Carbon. Science, Management and Policy for Multiple Benefits** », by Banwart, S. A., Noellemeyer, E. and Milne E., 2014. CABI.
- ♦ « **Promoting GHG mitigation policies for agriculture and forestry: A case study in Guadeloupe, French West Indies** », by Colomb, V., Martel, M., Bockel, L., Martin, S., Chotte, J.-L. and Bernoux, M., 2014. Land Use Policy 39: 1-11.
- ♦ « **Carbon in Drylands. Multiple essential functions** », by Bernoux, M. and Chevallier T., 2014. French Scientific Committee of Desertification.
- ♦ « **Producing biofuels in low-income countries - An integrated environmental and economic assessment for Tanzania** », by Branca, G., Felix, E., Maltoglou, I., Rincón, L.E. and Thurlow J., 2014. Working paper. UNU Wider.
- ♦ « **Characterization of Agroforestry Systems in the State of Rio de Janeiro, Brazil and their Potential in the Carbon Market** », by Figueroa C. M., 2014. Master Thesis. Universidad Autónoma de San Luis Potosí & Cologne University of Applied Sciences.

