

1. Activity Reporting.

Activity 847-2014

IMPACT on the Web

Status	On going	Milestone	4.3.1 2014 (1)
Start date	2014 Jan	End date	2014 Dec

Description: The continued use and demand for the IMPACT model along with pushes for open data requires a more accessible location. This web presence will need 3 major components to satisfy the growing demand for accessing and using IMPACT publications, model results, and the model itself. These 3 components are:

- (1) An IMPACT web portal, which consolidates and summarizes all of the work being done on the IMPACT model, as well as all work having used the model
- (2) A web interface for the IMPACT model, which will allow users to use a version of the IMPACT model on the web
- (3) Online documentation and training, that will facilitate training interested users in the use of the IMPACT model and its results

Status: On going. Significant progress was made in 2014 in the development of components (1) and (3). Working with Development Seed, we have developed a new data platform that will be the home of all future IMPACT runs, providing an interactive web presence for visualization of IMPACT model results under different projects and scenarios, and also for sharing data and related publications. The web platform is complete, but the public release is waiting until we finalize the new IMPACT 3 baseline in early 2015. Component (2) was considered of lower priority, and we wanted to ensure that a good web platform with good documentation was provided as a first step before working on a web interface for the model, which would only benefit from a strong IMPACT data user community.

Gender Component: Not defined

Objectives:

1. Identify and hire the consultants who will help develop the IMPACT web portal
2. Adapt training materials developed over the past couple of years into an online platform that could be used as online training for IMPACT
3. Develop the web interface of the IMPACT model building on the work done through 2013, and making sure that it is visually consistent with the Web Portal and IMPACT online training materials
4. Automate IMPACT reporting, to allow for the creation of default reports and visualizations that can be used both on the web and desktop versions of IMPACT

Deliverables:

Description	Type	Year	Status	Justification
IMPACT web portal, that provides a central location on the web for all IMPACT publications, model results, and datasets.	Social media outputs (including web sites, blogs, wikis, linkedin group, facebook, yammer, etc.)	2014	On going	The data platform is complete. However, it has not been publicly released as we want first to finish the new baseline, in order to release the web tool with some high visibility results.

Partners:

Partners not defined

Location(s):

Global

Activity 848-2014

Land use module embedded in IMPACT III, to augment the ex-ante assessment policy evaluation tools with the capacity of analyzing food security/adaptation/GHG emissions trade-offs.

Status	On going	Milestone	4.3.1 2014 (1)
Start date	2014 Jan	End date	2014 Dec

Description: The International Model for Policy Analysis of Agricultural Commodities and Trade (IMPACT) was a partial equilibrium model of international trade, which was developed to address long-term vision and consensus among policy makers and researchers about the actions that are necessary to feed the world in the future, reduce poverty, and protect the natural resource base. One of the primary thematic issues that becomes a focus of IMPACT studies is the recognition that the long-term change in agricultural land demand and availability and the geographical location of these changes would affect future food production and the provision of environmental services. Therefore, it is necessary to make more efforts to embed a land use module in IMPACT in systematic framework that should to enhance the ex-ante assessment policy evaluation tools with the capacity of analyzing food security/adaptation/ greenhouse gas (GHG) emissions trade-offs.

Status: On going. This activity consists of two parts of work. One is an aggregate land use supply module, designed to be embedded into IMPACT, which has been done. The other is a disaggregate land allocation module, designed to be linked with IMPACT indirectly through the first module. As a continuous work, the second module will be developed in 2015 and funded by BMGF and CCAFS (under a different project).

Gender Component: Not defined

Objectives:

1. This research activity aims at developing a land use module that can be embedded in IMPACT III to explore drivers of long-term change in agricultural land use and hence provide important implications on food production and GHG emissions at a variety of spatial scales ranging from disaggregated regions to countries.

Deliverables:

Description	Type	Year	Status	Justification
Modeling tools incorporated land use module in IMPACT for scenario analysis and strategic planning exercises	Other	2014	Complete	

Partners:

Partners not defined

Location(s):

Global

Activity 849-2014

Dissemination activities for: “Climate Change, Agriculture and Water: Scenarios to 2050” report (scenarios, modeling results, policy options) using IPCC AR5 scenarios, new SSPs, estimates of GHG emissions, and updated scenarios for population and GDP growth.

Status	On going	Milestone	4.3.1 2014 (1)
Start date	2014 Jan	End date	2014 Dec

Description: A global communications campaign will be organised upon publishing the “Climate Change, Agriculture and Water: Scenarios to 2050” Research Monograph or related working paper/policy brief.

Status: On going. Throughout 2014, IMPACT 3 has been going through iterations of calibration and validation. Through this process a variety of outputs have been generated that have begun to lay the foundation for a new research monograph. Journal articles focusing on irrigation efficiency (in collaboration with the OECD) provide scenarios for a potential chapter on water scenarios. Climate change analyses have also been contributed to several other projects under a range of plausible socioeconomic and emissions pathways, and are being compiled into a paper presenting the new IMPACT 3 baseline, which will be incorporated into the climate change monograph.

Gender Component: Not defined

Objectives:

1. The objective of this set of dissemination activities is to achieve maximum outreach for the research results presented in the research monograph (to be published under an IFPRI-led activity). The project intends to better communicate research outputs that include scenarios, modeling results, and policy options under the topic: Climate Change, Agriculture and Water: Scenarios to 2050. The work is making use of IPCC AR5 scenarios, new SSPs, estimates of GHG emissions, and updated scenarios for population and GDP growth. The target group is both global audiences such as in the COP-20, as well as more targeted regional groups.

Deliverables:

Description	Type	Year	Status	Justification
A working paper or policy brief will be presented at a key meeting, with the intention to publish a Research Monograph (book) in 2015.	Policy briefs - Briefing paper	2014	Complete	The working report has been completed, but hasn't be released to avoid any potential conflicts with getting a journal article published related to this work.
Research results to be published at a panel event during a key global meeting, possibly at a planned Foresight conference around October, leading to a possible COP side event in November.	Presentations	2014	Complete	
Full communications strategy around the policy brief dissemination, similar to the GLF Forum campaign in 2013 (this includes social media, written web features, conference booth presence and press conferences).	Articles for media or news (radio, TV, newspapers, newsletters, etc.)	2014	Complete	

Partners:

Partners not defined

Location(s):

Global

Activity 853-2014

Capacity building activities hold at CGIAR centers, and other partners, on the use of IMPACT III, as a tool to inform policy decisions.

Status	Complete	Milestone	4.3.3 2014
Start date	2014 Jan	End date	2014 Dec

Description: IFPRI will run a series of IMPACT 3 training workshops to train partners in the use of the new version of IMPACT. These partners are primarily from other CGIAR centers collaborating with IFPRI on the Global Futures Project (Phase 2).

Status: Complete. All of the CGIAR centers participating in the Global Futures and Strategic Foresight program had at least one participant attend one or more of the 3 IMPACT training workshops that we delivered in 2014. These workshops were hosted in 3 different locations to encourage participation. The 3 workshops were hosted at IFPRI in January, CIAT in February-March, and WorldFish in April-May. Non-CGIAR participants also attended as space permitted, including collaborators from Oxford University and four Central Asian countries.

Additional refresher training was provided in November in conjunction with the Global Futures and Strategic Foresight extended team meeting in Washington DC.

Gender Component: Not defined

Objectives:

1. Retrain IMPACT users familiar with previous versions of IMPACT to the new version of IMPACT
2. Train all of Phase 2 Global Futures fellows in the use of IMPACT 3
3. Update and improve IMPACT training materials for the new version of IMPACT
4. Start development of new IMPACT training materials that can be used both in person and for the IMPACT website

Deliverables:

Description	Type	Year	Status	Justification
IMPACT 3 Refresher and Update Workshop for Phase 1 Global Future Fellows, and other IFPRI/EPTD IMPACT users	Workshop	2014	Complete	
Train all Phase 2 Global Future Fellows in the use of IMPACT 3 in a series of workshops in 2014	Capacity	2014	Complete	
Updated and improved IMPACT training materials, guides, and tutorials	Presentations	2014	Complete	

Partners:

Partners not defined

Location(s):

Global

2. Succinct summary of activities and deliverables by Output level.

Output: 4.3.1

Summary: We worked with experts at OECD to analyze the potential effects of irrigation technologies in mitigating the adverse effects of climate change in OECD countries as well as the rest of the world. This was significant in that OECD itself used the IMPACT system of models for the analysis, with training from and in collaboration with IFPRI. The report, "Modelling Adaptation to Climate Change in Agriculture", was published as an OECD report in August 2014 and discussed in a meeting of OECD's Joint Working Party on Agriculture and the Environment.

In November, a policy brief focusing on promising technologies was presented at the Strategic Foresight Conference in Washington DC. The brief, also presenting key outputs from "Global Futures For Agriculture" Phase 1, prepared in collaboration with CIAT, CIMMYT, CIP, ICRISAT and IRRI, illustrated the potential impact on yields, production, consumption, prices and trade of agricultural technologies that are currently being developed for maize, wheat, rice, sorghum, potato, groundnut and cassava to help mitigate the adverse effects of climate change in a series of regional adoption scenarios.

Output: 4.3.3

Summary: We organized three 2-week IMPACT training workshops in 2014, with participation from Global Futures and Strategic Foresight partner scientists from 10 CGIAR centers (CIAT, CIMMYT, CIP, ICARDA, ICRAF, IITA, ILRI, ICRISAT, IWMI and WorldFish). These three training workshops were also open to other partners and included participation from scientists from Central Asia (Uzbekistan, Kazakhstan, Kyrgyzstan, and Tajikistan), and from collaborators at the University of Oxford.

In addition to the organized IMPACT training workshops, one-on-one assistance and technical support in use of the IMPACT system of models was provided to collaborators at the OECD.

3. Communications.

Media Campaigns:

During COP20 and the Global Landscapes Forum 2014, Global Futures and Strategic Foresight (GFSF) project was mentioned in media advisories and the subsequent press release.

A media campaign was co-organised together with AgMIP partners in early 2014, upon release of PNAS and AgEcon several articles.

Blogs:

Researchers get hands-on training to develop global food supply scenarios by Evgeniya Anisimova, PIM. Uploaded: 14 June 2014. <http://ccafs.cgiar.org/blog/researchers-get-hands-training-develop-global-food-supply-scenarios>. Views: 100

Climate extremes impacts on regional food security, Elizabeth Basauri Bryan (IFPRI) <http://ccafs.cgiar.org/blog/climate-extremes-impact-regional-food-security> Uploaded: February 19 2014. Views: 255

Agriculture and climate models under scrutiny: why are they not coming together? IFPRI Press Release. <http://ccafs.cgiar.org/research-highlight/agriculture-and-climate-models-under-scrutiny-why-are-they-not-coming-together>. Uploaded: 17 January 2014.

What will a new climate mean for farming? by Cecilia Schubert around AgMIP prproject. <http://climatechange.ifpri.info/what-will-a-new-climate-mean-for-farming/> Uploaded: August 25 2014 on IFPRI CC site

9 blog announcements upon several events organised by the GFSF, were published under: <http://globalfutures.cgiar.org/category/eventsandnews/>

Websites:

New website summarizing climate change work at IFPRI. The development and maintenance of the site was done in collaboration between the IFPRI and 4.3 communication teams and other staff.

<http://climatechange.ifpri.info>

New website for the Global Futures and Strategic Foresight (GFSF) project. (In collaboration with PIM)

<http://globalfutures.cgiar.org/>

Social Media Campaigns:

During COP20 and the Global Landscapes Forum 2014, social media campaign was organised by IFPRI and was further promoted by CCAFS.

Upon release of the new IFPRI microsite on climate change; <http://climatechange.ifpri.info>, social media campaign was organised by IFPRI and was further promoted by CCAFS. CCAFS supported social media activity upon new publications on the microsite.

A social media campaign was co-organised together with AgMIP partners in early 2014, upon release of PNAS and AgEcon several articles.

Newsletters:

none

Events:

Global Futures and Strategic Foresight has organised and participated in several training sessions at CIAT, ICRISAT, WorldFish and at IFPRI.

A Strategic Foresight Conference was also held at IFPRI in November.

Videos and other Multimedia:

U.S. Senator Bernie Sanders cited “Climate Change: Impact on Agriculture and Costs of Adaptation”:

“A study from the International Food Policy Research Institute found that globally climate change will greatly increase prices for staple crops such as corn, wheat, rice, and soybeans, including an approximately 100-percent increase in the price of wheat.”

Watch the video on C-SPAN: <http://www.c-span.org/video/?c4486812/bernie-sanders-tcp>

Other Communications and Outreach:

The Global Futures and Strategic Foresight project (GFSF) produced a brochure, a revised logo, a two pager policy brief, revised/launched its web site and has an IMPACT website to be launched this calendar year in production.

As a summary, Theme 4.3 work was also cited:

- <http://www.newsecuritybeat.org/2014/10/making-tragedy-inequality-mistrust-environmental-change-drive-ebola-epidemic/>
- <http://climate-l.iisd.org/news/ifpri-launches-climate-change-and-food-policy-website/>
- <http://www.climatecentral.org/news/un-climate-summit-big-data-17977>
- <http://www.newsweek.com/climate-change-ebola-outbreak-globalization-infectious-disease-264163>
- <http://twenty-two.co.za/the-fight-against-climate-change-for-farmers-in-southern-africa/>

[-http://www.sundayobserver.lk/2014/05/25/spe01.asp](http://www.sundayobserver.lk/2014/05/25/spe01.asp)

-Oxfam media briefing “Hot and hungry – how to stop climate change derailing the fight against hunger” cites FPR Climate Change: Impact on Agriculture and Costs of Adaptation

<http://www.oxfam.org/en/grow/policy/hot-and-hungry>

-Consultancy Africa Intelligence (CAI) article “Food sovereignty: A prerequisite for Africa’s food security and sustainability in a warming climate” cites DP Climate change impacts on food security in Sub-Saharan Africa: Insights from comprehensive climate change modeling

<http://www.polity.org.za/article/food-sovereignty-a-prerequisite-for-africas-food-security-and-sustainability-in-a-warming-climate-2014-04-07>

-WFP, cites “Climate Change: Impact on Agriculture and Costs of Adaptation”

-Nation (Nigeria), cites book “West African Agriculture and Climate Change”

<http://thenationonlineng.net/new/combating-challenges-of-erratic-weather/>

WFP, cites “Climate Change: Impact on Agriculture and Costs of Adaptation”:

<http://www.wfp.org/stories/10-hunger-facts-2014>

4. Case studies.

Case Study #1

Title: IMPACT and INAI collaboration focusing on the Argentina and the Southern Cone

Author: Daniel Mason-D'Croz

Type: Successful communications; Capacity enhancement;

Project Description:

The International Model for Policy Analysis of Agricultural Commodities and Trade (IMPACT) project has collaborated with the Instituto para las Negociaciones Agrícolas Internacionales (INAI) on the occasion of their first baseline scenario launch for Argentina. IMPACT results highlighting the role of specific agricultural technologies in mitigating the effects of climate change were presented, focusing specifically on analysis of the agriculture sector in Argentina. In follow-up meetings, members of the IMPACT development team shared experiences with model design and calibration with the INAI modeling team, building institutional contacts. Between others, the project aims to increased opportunities for future collaboration and ultimately improved capacity of both institutions to do policy analysis within the context of Argentina and South America's Southern Cone.

Introduction / objectives:

The initial contacts between the IMPACT and INAI began in the Fall of 2014, when IMPACT was invited to present at a conference hosted by INAI in Buenos Aires, Argentina. The first objectives were purely informational to share with INAI what modeling capacity is currently available in IMPACT. The next steps are to solidify these ties and to look for opportunities to share data and collaborate on issues involving Argentina.

Project Results:

Participation in the INAI-hosted conference contributed to building linkages with INAI's economic modeling team in Argentina. This participation showed willingness on the part of IFPRI and IMPACT to incorporate national expertise in its modeling work to improve national and regional policy analysis for agricultural production and trade. It additionally provided opportunities for sharing of modeling methods and tools.

Follow-up meetings with INAI are scheduled in the first quarter of 2015 to explore opportunities to collaborate on issues focusing on Argentina, with continued participation from IFPRI at several events hosted by INAI in 2015.

Partners:

Partners in this project include INAI, but also IFPRI-MTID who are also working with INAI in the development of country-level CGE models to be incorporated into MIRAGE.

Links / sources for further information:

<http://globalfutures.cgiar.org/2014/11/01/agricultural-projections-at-the-cereals-exchange-in-buenos-aires-inai-conference-argentina/>

<http://www.inai.org.ar/notas.asp?id=175>

<http://grupogpps.org/en/actividades/primera-conferencia-sobre-proyecciones-agroindustriales/>

5. Outcomes.

Outcome #1:

Institutionalizing the use of IFPRI's IMPACT model in OECD global and regional policy analysis

What is the outcome of the research (i.e. use of research results by non-research partners)?

Incorporating the use of the the International Model for Policy Analysis of Agricultural Commodities and Trade (IMPACT) system of models into the OECD global and regional policy analysis; through training, collaborative analysis, and publications exploring the effects of climate change and adaptation strategies on agriculture in the OECD and globally, and in so doing, supporting policy dialogue within the OECD and its partners, and strengthening their capacity to use IMPACT for future analysis and dialogue.

What outputs produced in the three preceding years resulted in this outcome?

Jointly worked on an OECD Report looking at the effects of irrigation expansion in the OECD region:

1. Ignaciuk, A. and D. Mason-D'Croz (2014), "Modelling Adaptation to Climate Change in Agriculture", OECD Food, Agriculture and Fisheries Papers, No. 70, OECD Publishing. <http://dx.doi.org/10.1787/5jxrcllnbxq-en>. URL: http://www.oecd-ilibrary.org/agriculture-and-food/modelling-adaptation-to-climate-change-in-agriculture_5jxrcllnbxq-en
2. Upcoming journal article in EuroChoices that was accepted for publication in 2014: Ignaciuk, A., Mason-D'Croz, D., Islam, S., "Better Drip than Flood: Reaping the Benefits of Efficient Irrigation". EuroChoices

What partners helped in producing the outcome?

The International Food Policy Research Institute (IFPRI)

The research was also in collaboration with the CGIAR Research Program on Policies, Institutions and Markets. The Global Futures and Strategic Foresight project, under which this collaboration took place, is co-supported by PIM, CCAFS and Bill and Melinda F

Who used the output?

The primary output users are the OECD and OECD country delegates, in particular through OECD's Joint Working Party on Agriculture and the Environment and the Trade and Agriculture Directorate. Publishing articles in EuroChoices also is targeting policy makers and policy informers in that region.

How was the output used?

The first research output was an OECD published report, discussed at a meeting of OECD's Joint Working Party on Agriculture and the Environment, and which has been a useful demonstration of the value of IMPACT and opportunity to more institutional support for greater use of the model and collaboration.

What is the evidence for this outcome? Specifically, what kind of study was conducted to show the

connection between the research and the outcome? Who conducted it?

An OECD report was published and officially discussed. The value of the collaboration is shown by the fact that the OECD, whose work program is carefully overseen and approved by its member countries, is planning further collaboration with IFPRI in 2015, and is hiring a consultant to link relevant work module.

7. Outcome indicators.

Outcome Indicator:

Integrated adaptation strategies for agricultural and food systems inserted into policy and institutional frameworks at regional, national or sub-national level in 2 target regions. Policy makers and key stakeholders use CCAFS research outputs - guidelines, tools and methods-- to support the development of NAPAS, sector specific adaptation plans, or germplasm benefit sharing policies.

Achievements:

Institutionalizing the use of IMPACT within the OECD for global and regional policy analysis, and informing policy dialogue on adaptation to climate change by OECD's Joint Working Party on Agriculture and the Environment.

Evidence:

- OECD report (Ignaciuk and Mason-D'Croz) using IMPACT to explore potential effects of irrigation technologies under climate change
- 2 planned follow-up journal articles to be jointly written by OECD and IFPRI
- OECD hiring of consultants to integrate IMPACT data and results into other OECD economic models

Outcome Indicator:

Global database and set of tools for climate-smart agriculture established and used by key international and regional agencies

Achievements:

(IMPACT as a set of tools and global database)

Institutionalizing the use of IMPACT within the OECD for global and regional policy analysis, and informing policy dialogue on adaptation to climate change by OECD's Joint Working Party on Agriculture and the Environment.

Evidence:

- OECD report (Ignaciuk and Mason-D'Croz) using IMPACT to explore potential effects of irrigation technologies under climate change
- Results were discussed in a meeting of OECD's Joint Working Party on Agriculture and the Environment
- 2 planned follow-up journal articles to be jointly written by OECD and IFPRI
- OECD hiring of consultants to integrate IMPACT data and results into other OECD economic models

8. Leveraged funds.

There is no Leverage funds

9. Publications.

Publication #1:

“Modelling Adaptation to Climate Change in Agriculture”, OECD Food, Agriculture and Fisheries Papers, No. 70

Citation:

The citation is not defined yet.

Identifier	CCAFS Themes	Type	Access
	Not defined	Peer-reviewed journal articles	Gold

Publication #2:

“Modelling Adaptation to Climate Change in Agriculture”, OECD Food, Agriculture and Fisheries Papers, No. 70

Citation:

The citation is not defined yet.

Identifier	CCAFS Themes	Type	Access
http://dx.doi.org/10.1787/5jxrclljnbnxq-en	Theme 4.3,	Other	