



## Executive summary

Integrated Water Management and Urban Development  
in relation to Climate Change in Hà Tĩnh, Ninh Thuận and  
Bình Thuận Provinces (VIE1204411, VIE1104011,  
VIE1204311)

&

Technical Support Unit for Water Management and Urban  
Development in relation to Climate Change in Hà Tĩnh,  
Ninh Thuận and Bình Thuận Provinces (VIE1204511)

Country: Vietnam

Authors: Vincent Rotgé, Pham Tran Minh and Ngo Sy Huy

Organisation: ADE

Date of Review Report: 30/05/2019

## 1 Presentation of the evaluation

The Intervention was designed by 2012. Activities started in late 2013 (Ninh Thuận and Hà Tĩnh Provinces, TSU) and April 2014 (Binh Thuận). As per TFF partners' contributions are summarised as follows:

- 8.8 million EUR for Hà Tĩnh (7.8 million EUR from Belgium / 1 million EUR from Vietnamese partners),
- 10.6 million EUR for Ninh Thuận (9 million EUR from Belgium / 1.6 million EUR from Vietnamese partners),
- 6 million EUR for Binh Thuận (5.2 million EUR from Belgium / 0.8 million EUR from Vietnamese partners),
- 4.4 million EUR for TSU (4 million EUR from Belgium / 0.4 million EUR from Vietnamese partners).

Total allocated budget was 29.8 million EUR with 26 million EUR contributed by Belgium through Enabel support within the framework of Belgian bilateral development cooperation.

The End-Term Review (ETR) presented in this report was conducted in Vietnam from 04 to 28 March 2019 by a three independent consultant team (Vincent Rotgé, Pham Tran Minh and Ngo Sy Huy) recruited by ADE on behalf of Enabel. The ETR was fielded a few weeks before final completion of the Intervention (30 June 2019), and a few days before last payments were permitted (deadline: 31 March 2019).

## 2 Results and conclusions

### 2.1 Performance criteria

#### 2.1.1 Relevance

The scope of the Intervention which focusses on Integrated Water Resource Management (IWRM), urban development and climate change is relevant to the context of the three Provinces which are exposed (to varying extents) to seasonally high temperatures, riverine flooding, rainfall overwhelming the capacity of urban drainage systems, droughts, saline intrusion, riverbank and coastal erosion... The Intervention's outcome is well in line with the United Nations Framework Convention on Climate Change (UNFCCC) and more specifically the COP21. In effect, the Intervention has increased the capacity of cities/local authorities in the three target Provinces to build resilience to the adverse effects of climate change. The contents of activities and outputs are also relevant as they raised local capacities through a combination of mutually reinforcing and logically sequenced components. The TSU role and outputs have proved relevant in providing managerial and technical support to the Provinces for project execution and in building upon the Intervention's achievements to draw lessons and promote replication and policy-advancement at the national level. Scores attributed to 'relevance' for Provinces and TSU range from A- to A and B+.

#### 2.1.2 Efficiency

The Intervention faced numerous constraints and delays, among which some were due to external causes. Besides, the Intervention was based on a logical sequence (establishing and operating models, identifying infrastructural needs based on models results, implementing pilot projects and drawing lessons from them...). The point is that it proved complicated to implement and offered insufficient flexibility in the face of accumulated delays. Despite a difficult start, the TSU and PCUs were able to take remedial steps and increase its efficiency during the second half of the

Intervention lifetime, resulting in the Intervention gaining in speed. As of the end of March 2019, based on the information provided by the TSU and PCUs, disbursement rates seemed good. However, final disbursement rates still depend on the capacity of Ninh Thuận and Hà Tĩnh Provinces to complete some infrastructural works which were still on-going as of Mid-March 2019; besides, Bình Thuận Province had still to complete its EWS. Scores attributed to ‘efficiency’ for Provinces and TSU range from B to B+.

### **2.1.3 Effectiveness**

The outcome and many results (outputs) have been achieved. A number of ‘soft’ activities or related to housing schemes were cut partly based on MTR recommendations and/or due to other reasons explained in this report, while new activities were added especially new physical investments. Most of the latter were implemented although as of mid-March 2019, some infrastructural works had still to be completed in Ninh Thuận (portion of main irrigation canal including a gate) and Hà Tĩnh (large urban retention basin) Provinces and some activities concerning the EWS in Bình Thuận Province and, to a lesser extent, Ninh Thuận Province. Hydrological/hydraulic models and studies were developed so that they can be used for river basin management and EWS. Hydrological/hydraulic models are functional in the three Provinces but there are some local differences as to if and how they can be used (see Q9-Result 2, 4.1.3.2, below). At TSU level, effectiveness proved good especially in terms of management and technical advices provided to the Provinces, while TSU activities related to capitalisation and reaching out to donors are still on-going as of the end of March 2019. Scores attributed to ‘effectiveness’ for Provinces and TSU range from C+ to B+.

### **2.1.4 Impact**

The impact of the Intervention can be termed as broadly satisfactory. Its main merit is to have raised awareness and tested new approaches and concepts although sometimes in a piecemeal manner which can be partly explained by a still insufficient legal framework. In many stakeholders’ own words, a variety of actors were sensitised to CC. Also, the Intervention raised the local capacity level – although incompletely in some areas – through developing scenarios and proposing infrastructural and non-infrastructural climate change adaptation solutions (production of flood risk maps being circulated...). However, it is still too early to assess the impacts of some of the infrastructural and non-infrastructural components. This holds true regarding the interoperability<sup>1</sup> across and among concerned departments, the regular updating of the database and upgrading of the models and systems and continuous training of the concerned staff. Scores attributed to ‘impact’ for Provinces and TSU alike are A-.

### **2.1.5 Sustainability**

Some important questions remain in terms of sustainability. They mainly relate to soft components and to ownership issues, the absorption capacity of the concerned departments and staff and the interoperability<sup>2</sup> of systems across departments. It is for example unclear whether the capacity of the local staff to operate systems and make necessary revisions (*e.g.*, input new parameters such as new infrastructural improvements as they come) will be fully sustainable over time. Regarding the interoperability<sup>3</sup> of the systems among the concerned provincial departments, Ninh Thuận Province had a clear exit strategy consisting of centralising the information and maintenance of the IT infrastructure and entrusting the concerned sectoral departments with managing the systems (the ToR for a Consultant to work on streamlining this issue was issued at a late stage and the proposed mechanisms had still to be delivered and tested as of March 2019). In this respect,

---

<sup>1</sup> The term ‘interoperability’ here means the capacity of the concerned departments to jointly manage and use the systems, parts of which are shared, that is to run and maintain the software applications, acquire and update the data, train the staff using the systems, *etc.* ...

<sup>2</sup> See footnote 1.

<sup>3</sup> See footnote 1.

however, the situation was more uncertain in Binh Thuận Province. Further unanswered questions concern the capacity of the provincial staff to make full use of the scenarios obtained through the models (*e.g.*, flood risk maps) and develop possible new scenarios when revising Master Plans. Regarding the infrastructural works (pilot projects), main sustainability issues relate to O&M but in the partners own terms this aspect shall be covered by the entities which the works is going to be handed out (*e.g.*, IMC, districts, etc. as relevant). Scores attributed to ‘sustainability’ for Provinces and TSU range from B to B+. If only soft components were considered, such scores may be lower.

### **2.1.6 Environment**

Environmental considerations are a core element of the Intervention and are adequately integrated. Most outputs have therefore a direct positive impact, *e.g.*: mangrove restoration (Hà Tĩnh with possible replication in other provinces through the sale of seedlings); numerous tree plantations in parks and along main drainage/irrigation canals side lanes, rehabilitated waterfront and embankments; creation of ponds and green urban amenities in urban areas... At the same time, the Intervention did not entail noticeable direct negative environmental impacts. Still, increased environmental stresses due to accelerated urbanisation are likely to occur along the infrastructural works implemented through the Intervention and should be monitored.

### **2.1.7 Gender and minority/ethnic groups**

Although no systematic gender budget analysis was reported, it appears that systematically including a large share of women (departments staff, provincial and district officials, civil society representatives, some end-beneficiaries) and representatives of women’s associations in training and awareness-raising activities was the rule. Statistics including female attendance to training and awareness-raising sessions were kept. Other activities specifically benefitted women. This is true for the mangrove restoration scheme in Hà Tĩnh Province which improved their livelihood. Also, women’s associations played a role in facilitation negotiations when the voluntary transfer of small pieces of land in private properties bordering some of the pilot projects (canals, lanes...). Also, some activities took place in areas populated by minority ethnic groups (Cham) who have directly benefitted from the Intervention.

## **2.2 Specific questions**

### **2.2.1 Intervention learning and innovation dimension**

The Intervention proved very clearly innovative in bringing new approaches and systems to address IWRM and urban development in relation to climate change in Vietnam. It has brought useful innovations which deserve to be disseminated for possible replication and extension. Consistent with its Outcome the Intervention increased the capacity of the provincial staff and enabled them to understand climate change effects and possible adaptation solutions focusing on IWRM and urban development. It also introduced useful systems (for River Basin Management including hydrological/hydraulic models, and EWS) although the linkage between the modelling exercise and urban planning is less clear. In general, partly due to differences in training and specialisation of the staff but also to the cancellation of some cross-cutting inter-department, some activities remained somewhat compartmentalised within departments. Differences among provincial departments in terms of specialisation and human resources played also a role. However, part of the problem is institutional and may require broader policy changes at the national level regarding, for example, Water Basin Management and Master planning.

### **2.2.2 Potential lessons for Enabel in relation to the sector area**

Lessons drawn from the Intervention potentially useful to Enabel in other geographical areas can be summarised as follows:

- Identify constraints which can be addressed at the provincial level and national level, respectively.
- Do not try to push a policy agenda (*e.g.*, Master planning or water basin platform) at the Provincial level too drastically if the national institutional/legal framework is not ready for.
- Instead, plan and implement policy advancement activities at the national level (lobbying, networking, awareness-raising, information-sharing through seminars) but in parallel to activities conducted at the subnational level, and, at the same time.
- With regard to Water basin management or Master planning, which are very important issues, focus on training and awareness-raising in the Provinces and on practical workshops with the concerned provincial through a cross-disciplinary approach, *e.g.*: how to prepare a flood risk map and how to take it into account for land-use zoning...
- Avoid starting with the most complicated activities (*e.g.*, modelling) – in other terms, do not design a project in such a way as making activities too dependent on uncertain or difficult initial results.
- Regarding pilot projects, as said earlier, implement instead an *ex ante* scoping which allows the identification of relevant works at an initial stage/inception.
- Involve end-beneficiaries in pilot projects (*e.g.*, drills for EWS), not just through training and awareness-raising even though the latter are also useful and needed.
- Foresee the close monitoring of works and systems by comparing ‘before and after’ the implementation of the activities.
- Expand bio-diversity and greening aspects (*e.g.*, mangrove or upper basin environmental restoration...).
- Try to identify budget lines for continuous/regular follow-up training of the relevant staff obviously during but also after the end of the project, and get a commitment from the Provinces about.
- Identify sufficiently beforehand the departments to which, works or systems will be handed out and clarify O&M issues.
- Clearly identify the way models and systems (River Basin Management, EWS...) are going to be operated when requiring contribution from several departments. Do not wait until the end of the project.
- Consider the possibility of establishing a ‘one-stop shop’ approach when dealing with Provinces (integrating TSU within Enabel’s services).
- Possibly consider the issues of solid waste management (to reduce dumping of waste into the drainage system), sanitation and the separation of waste water and drainage water. However, before doing so, make sure that you would not embrace too many issues thereby overstressing your resources.

### 2.2.3 TSU-PCUs operating mechanisms

After a difficult start, TSU and PCUs started working together in an efficient and effective manner. Some shortcomings can be nevertheless pointed out. They mainly relate to: (1) lack of visibility of the TSU over the partners contribution; (2) initial perception of the respective roles of Enabel and TSU (a one-stop-shop approach may be a solution to consider), (3) need to allocate more time and initial coordination meetings for the partners, Enabel and national authorities to understand and adjust to each other’s procedures such as financial and regarding no-objection; (4) possibility to resort to frequent remote meetings – in addition to physical meetings – to increase the frequency of coordination meetings among partners; (5) insufficient direct sharing of experience among Provinces (probably due to the existence of higher priorities in a difficult context); (6) tendering procedures at the Provincial level for the selection of certain consultancy services led to different technical solutions being chosen. While this ensured diversity and followed Provincial rules, it may have made the sharing of experience more difficult among Provinces on certain issues.

### 3 Recommendations

- MPI: identify the studies implemented at the TSU level which can be used as the basis for advancing policy reforms or good practices and pursue discussions with MoNRE, MoC, and other stakeholders (MARD...).
- MPI: consult with potential international donors (WB, ADB, AFD already present in the three Provinces...) – possibly in conjunction with ENABEL – with a view to consolidating and expanding activities in the three Provinces and possibly beyond the latter in making use of the intervention results (outputs).
- MPI: consider the possible organisation of additional follow-up Workshops beyond completion of the intervention.
- Hà Tĩnh and Ninh Thuận PCUs and Provinces: complete the infrastructural works as relevant/necessary.
- Ninh Thuận and Binh Thuận PCUs and Provinces: complete the interoperability<sup>4</sup> of the hydrological/hydraulic models and EWS so that they become functional and sustainable (*cf.* sub-section 0.2.1.5).
- All PCUs and Provinces: ensure that effective monitoring and maintenance is expected to take place for all infrastructural works realised through the Intervention, including with regard to the structural safety of the works but also keeping the works from littering and the dumping of solid waste, ensuring that protective barriers are constructed and maintained to prevent falls...
- TSU and all PCUs and Provinces: finalise the hand-over and mechanisms and structures (*modus operandi*) for operating models, systems and application software, including interoperability, maintenance, updating, upgrading, continuous/regular training...
- TSU and Provinces, PCUs: finalise project briefs to be posted on Provinces and stakeholders Websites – make it available to Provinces so that they can upload them onto their own websites.
- TSU: capitalisation Workshop – identify and share learnings from the project to be presented during the Workshop / separate sessions with donors (or a separate roundtable or workshop) should be foreseen.
- TSU: finish to edit, publish, publicise and disseminate guidelines and other policy or technical documents produced by the intervention (*e.g.*, on Master planning in relation to IWRM climate change). Those will be presented during the Workshop(s).
- TSU: approach UNESCO-IHE (Delft) possibly through UNESCO-Vietnam to participate in the meeting. A second Workshop may be organised to this end at later date (thus allowing enough time for its preparation – ToR may be sketched by June 2019). This workshop may provide an opportunity to discuss and promote relevant policy reforms on Water Basin Management, Master planning...
- TSU: liaise with IMHEN to make use of the intervention results (outputs) in the next revision of the national Climate Change Action Scenarios.
- Provinces: Identify or allocate financial resources (possibly from existing budgets) for providing continuous training to relevant provincial staffs in Master planning, IWRM, flood prevention, GIS... so that they can continue operate the systems.
- Provinces and PCUs: identify potential synergies with donors already locally active.
- Provinces: enhance the link between hydrological studies, modelling and Master planning (periodical revision of Master Plan to take flood maps and climate projections on board), infrastructure planning and management...

---

<sup>4</sup> See footnote 1

- Provinces: indirectly, urbanisation is expected to be fueled along some of the improved infrastructural works. Make sure that the potential related impacts (traffic, pollution, increase in sanitation needs, possible socioeconomic changes induced...) are kept under control as relevant/applicable.

## 4 Lessons learned

Some lessons are summarised in 2.2.2, above. These, specifically intended for Enabel, are meant to be useful in other geographical settings where Enabel is active in the sector area (IWRM and urban development in relation to climate change). Additional lessons are drawn below, focus of which is more immediately related to the Intervention and which are meant to be useful to all the Intervention's actors – including the Vietnamese partners.

- Make a deepened institutional capacity development of the stakeholders at a very early stage (or even *ex ante*).
- Foresee a number of meaningful infrastructural works which can be implemented from the start of the project without having to wait for the results of the hydraulic/hydrological models.
- Carefully assess the time which it will take for the hydraulic/hydrological models to start producing useful results.
- Pilot investments will then prove their full effect provided that they are selected and designed from outputs of Climate change and hydraulic/hydrological models.
- Do not underestimate the time taken by decision-making and approval procedures when national, sub-national and international partners are involved – same for housing credit activity.
- Try to make sure that training can be provided through local sources of funding (operating budgets) following the end of the intervention.
- Clearly identify O&M mechanisms at an early stage (infrastructure) and make sure that new infrastructural works are fully sustainable in terms of O&M.
- At the Provincial level, assign one lead department for each activity – when dealing with the hand-over of complex (modelling) systems, anticipate issues of inter-operability.
- Enhance the sharing of experience among Provinces.
- Consider the possibility to include some sort of willingness-to-pay and affordability studies for water supply projects.
- Use the results (outputs) of the intervention as the basis for introducing policy reforms or advancing practices at the national level (guidelines for public investment projects, Master planning, contribution to national Climate Change Action Scenarios...).
- Do not rely too exclusively on external TAs for building capacities – provincial departments need initial external inputs to raise their capacity in a number of areas but learning-by-doing is also important and takes time.