

Shelter

Sustainable Historic Environments
hoListic reconstruction through
Technological Enhancement &
community-based Resilience



**Extract of D4.2 – Strategy for early recovery roadmap
Seferihisar Roadmap**

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Glossary

Acronym	Full name
BBB	Build Back Better
CA	Consortium Agreement
CCA	Climate Change Adaptation
CH	Cultural Heritage
CNH	Cultural and Natural Heritage
CNHM	Cultural and Natural Heritage Management
DRR	Disaster Risk Reduction
DRM	Disaster Risk Management
DoA	Description of Action
HA	Historic Area
LDRM	Local Disaster Recovery Manager
EC	European Commission
EOP	Emergency Operations Plan
NH	Natural Heritage
OL	Open Lab
PDRP	Pre-Disaster Recovery Plan/Planning
PDRR	Pre-Disaster Recovery Roadmap
PRT	Planning Resilience Team
SP	Spatial Planning
WHL	UNESCO World Heritage List
WP	Work Package

1 Applying the SHELTER Pre-Disaster Recovery Roadmap methodology to the five Open Labs

The SHELTER Pre-Disaster Recovery Roadmap (PDRR) methodology is tested and applied to each OLs. Five tailored early recovery Roadmaps have been drafted, taking into account: i) the activities the case studies have already performed prior to or regardless of SHELTER project. The inputs that OLs provided to other Tasks (e.g., the policy instruments already in place mapped in Task 4.2) during the project implementation were used; ii) the outputs and outcomes generated so far from the project.

The main purpose of this activity has been to understand which steps of the Roadmap have been already completed and what else should be done by OLs to build their own early recovery Roadmap. To achieve that, the following process has been applied:

- UNIBO drafted the five tailored Roadmaps based on the information gathered from the outputs and outcomes generated so far from the project and the inputs that OLs provided to other Tasks. Miro¹ has been used as a collaborative tool to show the Roadmap and to collect feedback from OLs.
- bilateral remote meetings have been scheduled in early May 2022 with each OL, involving OL coordinators and OL technical partners. During these meetings, the colleagues involved were asked to provide their feedback and comments on the PDRR, to check the activities foreseen by the Roadmap, the checklist and the five phases in detail. Each OL coordinator and OL technical partner were also asked to double-check if they agreed on the inputs coming from SHELTER Tasks and to inform about other possible inputs not considered yet, to better understand which activities have been completed by the OL and which are still to be implemented;
- UNIBO finalized the changes and comments provided by OLs.

1.1 Seferihisar Open Lab

The Seferihisar OL is an urban OL, located in the District of Izmir, in Turkey. It is characterised by rural areas and a historical coastal town. The district is in Seismic Zone 1, being the fault line directly beneath it and the whole peninsula subject to extreme heat waves and storms. The community is vulnerable to both earthquakes and extreme climate events.

¹ Miro | Online Whiteboard for Visual Collaboration, available at: <https://miro.com/>

1.1.1 PHASE 1 – GETTING STARTED: Form a Collaborative Planning Resilience Team

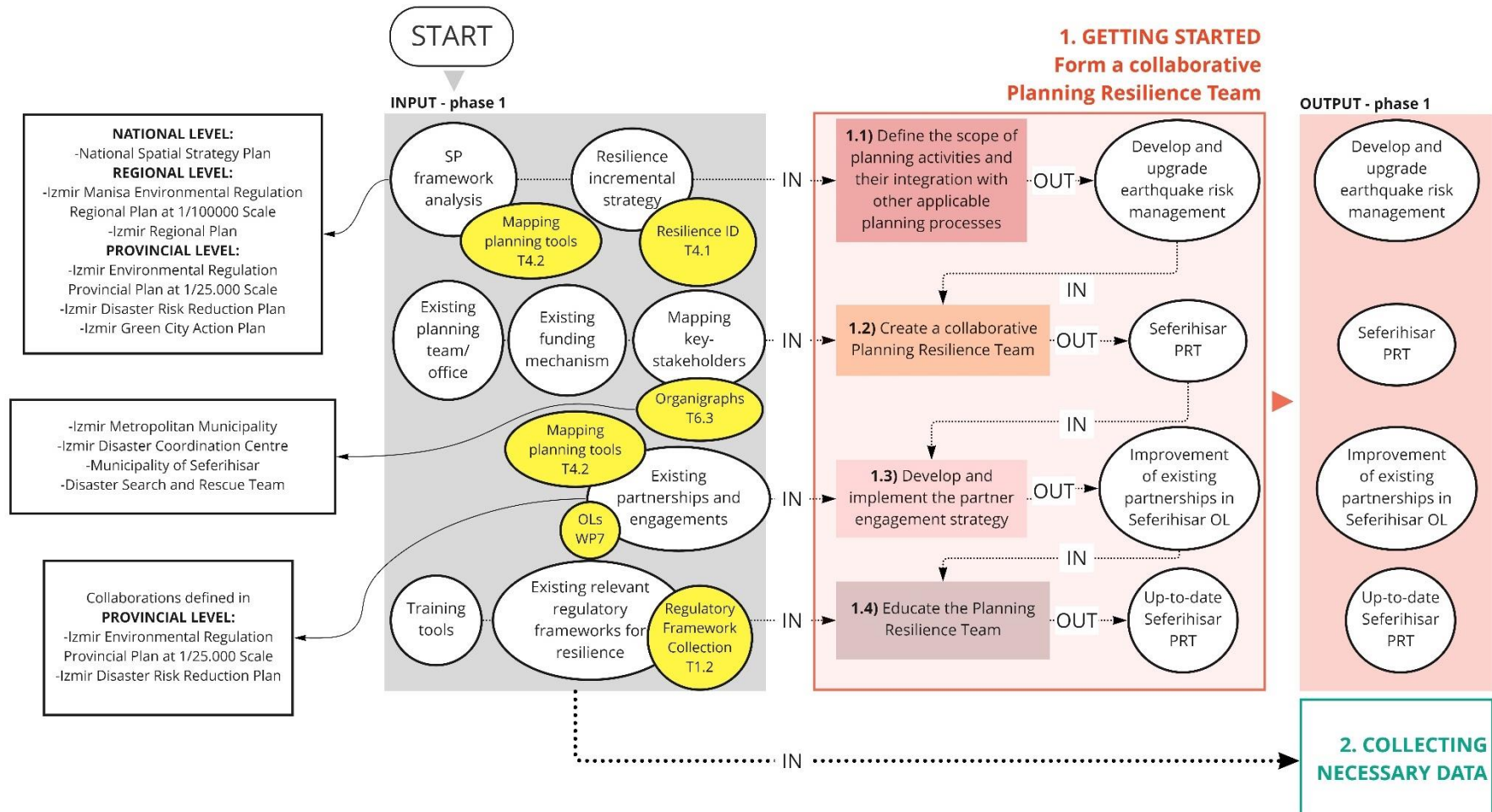


Figure 1. Phase 1 for Seferihisar OL

Activity 1.1 - Define the scope of planning activities and their integration with other applicable planning processes (Figure 56)

In order to better delineate the general scope of the PDRP activities, existing recovery, mitigation and adaptation plans and strategies have to be considered.

The planning tools, already collected in Task 4.2 *Definition of protocols, plans and guidelines for CCA/DRM and integration within planning policies*, that can be relevant in this step are the followings (Table 14).

LEVEL	SP TOOL
National level	National Spatial Strategy Plan
Regional level	Izmir Regional Plan
	Izmir Manisa Environmental Regulation Regional Plan at 1/100000 scale
Provincial level	Izmir Environmental Regulation Provincial Plan at 1/25000 scale
	Izmir Disaster Risk Reduction Plan
	Izmir Green City Action Plan

Table 1. Relevant SP tools for Seferihisar OL for Activity 1.1

From the analysis of the SP framework, it can be defined that the scope of the PDR planning for Seferihisar OL is to develop and upgrade earthquake risk management.



Figure 2. Key-activity 1.1 for Seferihisar OL

Activity 1.2 - Create a collaborative Planning Resilience Team (Figure 57)

According to the PDRR, the PRT should be formed by individuals with various skills and representatives of the whole community.

The Municipality of Seferihisar, as guided by the local branches and central directives of AFAD, the Disaster And Emergency Management Presidency, can be considered as the starting point to form the team which leads the recovery planning process. According to the Organigraph, developed in Task 6.3, there are other political and technical entities that offer their contribution to the process:

- Izmir Metropolitan Municipality
- Izmir Disaster Coordination Centre
- Disaster Search and Rescue Team

Funds for these planning activities are retrieved from the local government's budget, programmes of the national government and programmes of international/national agencies.

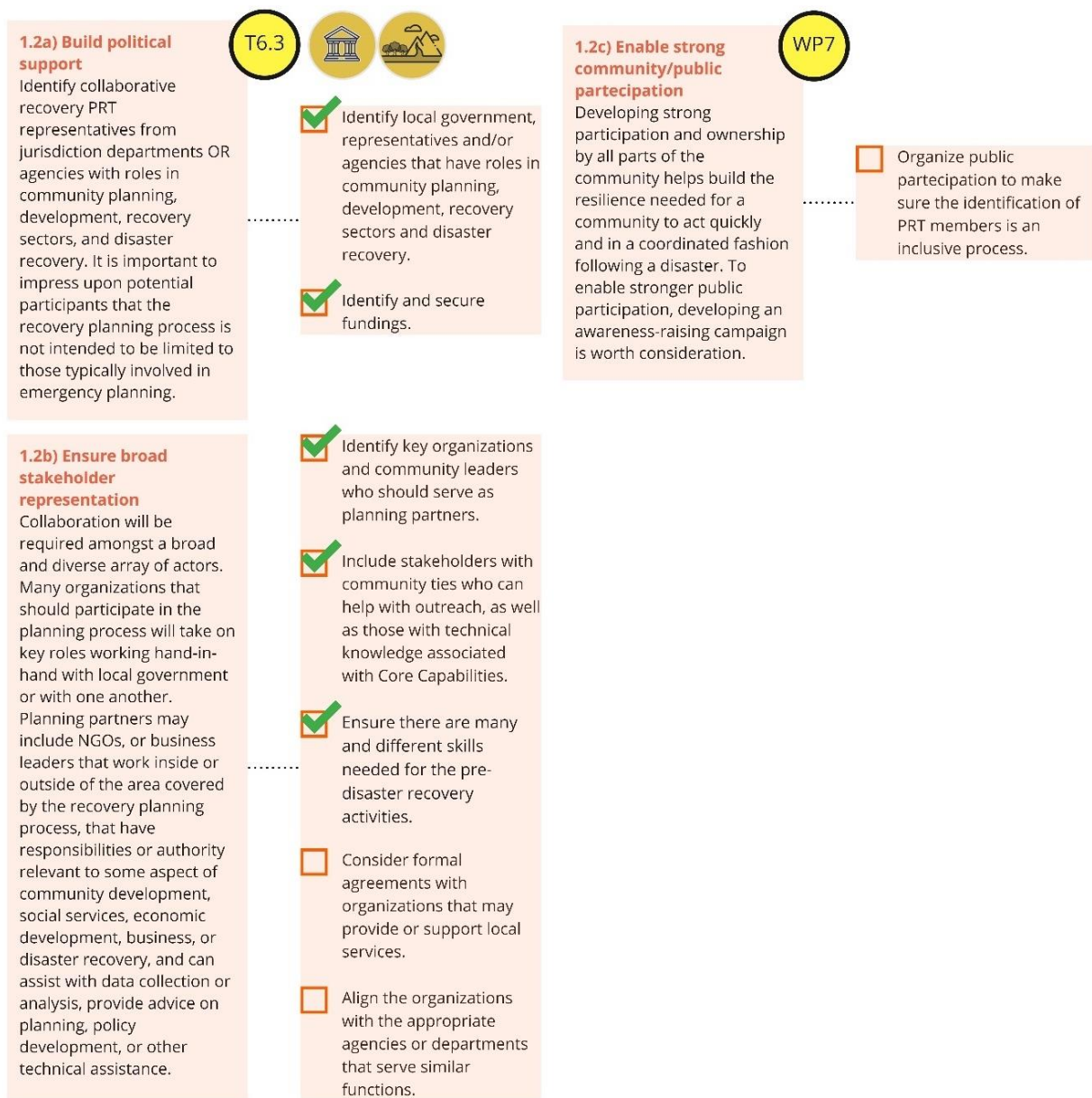


Figure 3. Key-activity 1.2 for Seferihisar OL

Activity 1.3 – Develop and implement the partner engagement strategy (Figure 58)

To evaluate continually additional stakeholders and new partners to be included as needed throughout the planning process, it is possible to consider the collaborations defined in the following planning tools (Table 15).

LEVEL	SP TOOL
Provincial level	Izmir Environmental Regulation Provincial Plan at 1/25000 scale
	Izmir Disaster Risk Reduction Plan
	Izmir Green City Action Plan

Table 2. Relevant SP tools for Seferihisar OL for Activity 1.3

The development and implementation of these planning tools foresaw collaborative processes with relevant stakeholders and local communities.

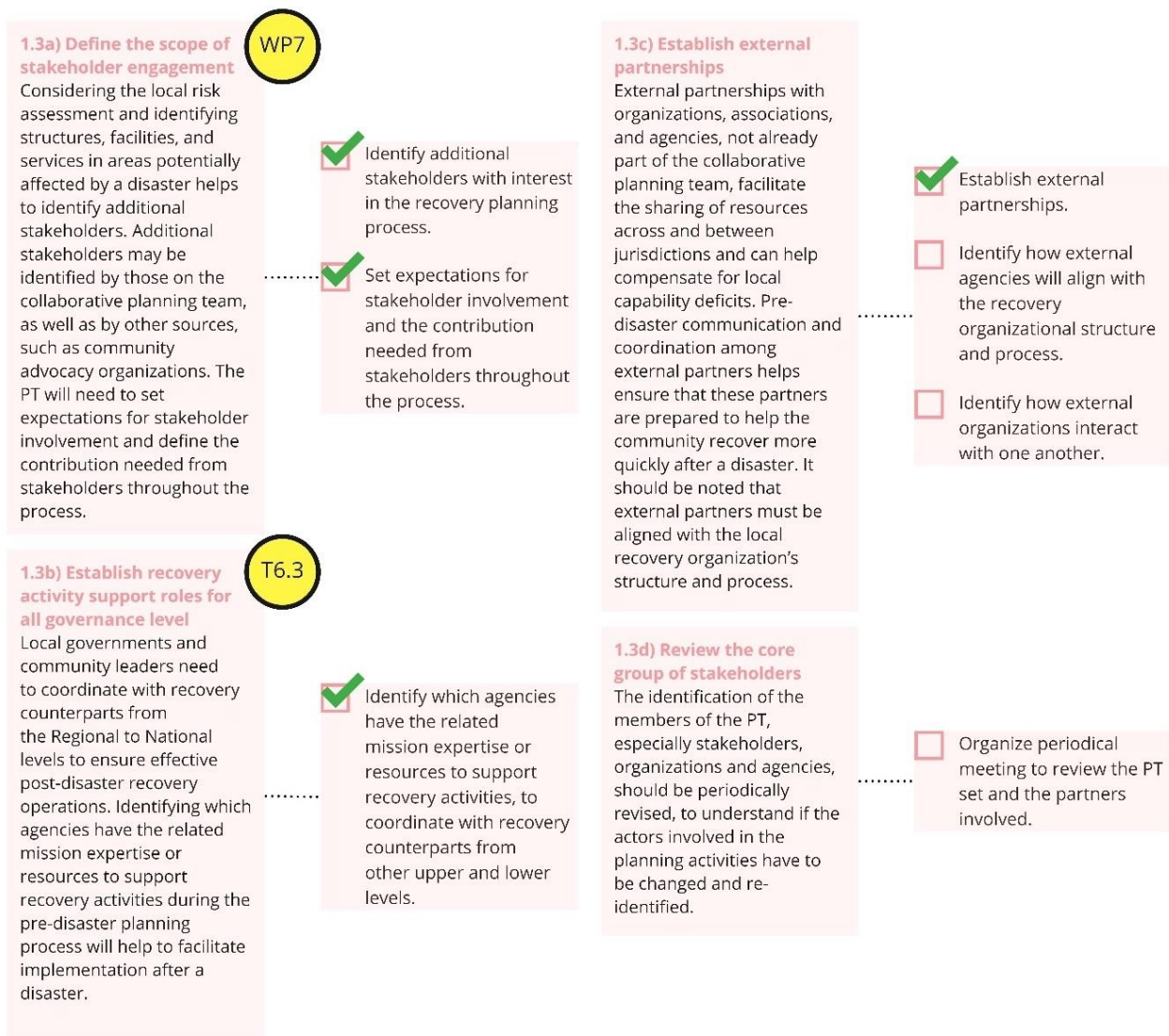


Figure 4. Key-activity 1.3 for Seferihisar OL

Activity 1.4 – Educate the Planning Resilience Team (Figure 59)

The education of the stakeholders involved in the recovery planning activities, within Seferihisar OL, are provided by the DRM agency at national level, AFAD, through trainings. It has the role of coordinator of governmental bodies, NGOs, private business and local communities to plan the post-disaster response.

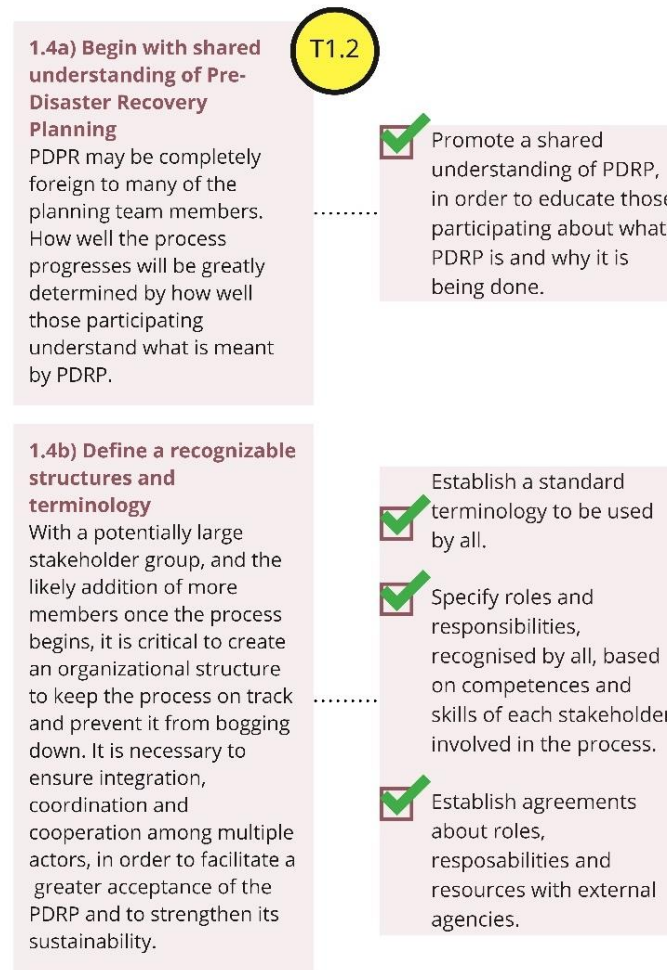


Figure 5. Key-activity 1.4 for Seferihisar OL

Regarding the first phase, it is possible to say that Seferihisar OL has a well-defined team, in terms of planning resilience, involving many different and educated stakeholders.

1.1.1.2 PHASE 2 – COLLECTING NECESSARY DATA: Understand the situation

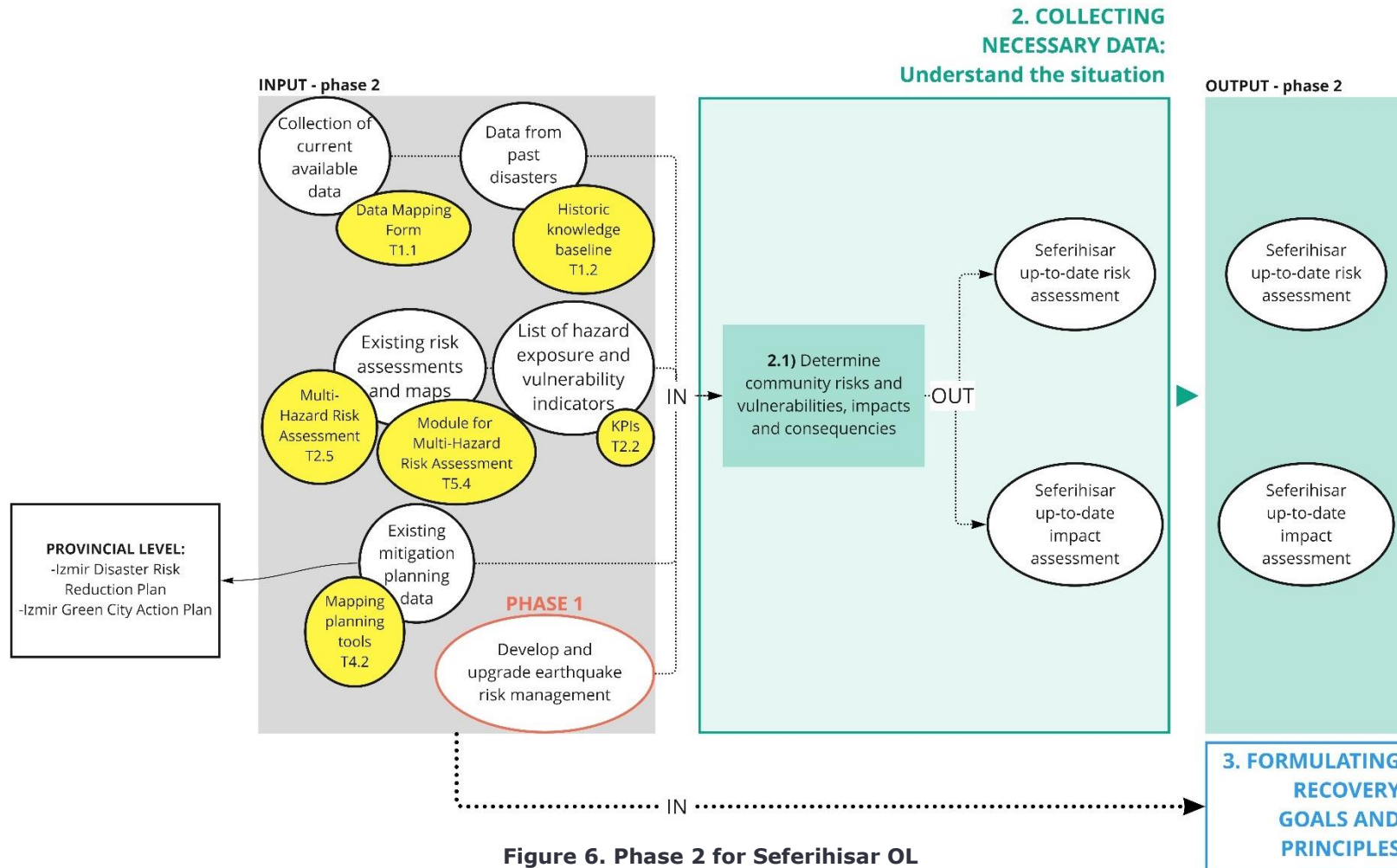


Figure 6. Phase 2 for Seferihisar OL

Activity 2.1 - Determine community risks and vulnerabilities, impacts and consequences (Figure 61)

The Seferihisar OL can use many different instruments to obtain specific disaster risk information.

From SHELTER, the available inputs are:

- Data Mapping Form, which collects all current available data
- Historic knowledge baseline, to be informed about past events' impacts
- Multi-Hazard Risk Assessment
- Set of KPIs, as hazard exposure and vulnerability indicators

Furthermore, there are some planning tools, that provide also specific disaster risk information, at provincial level (Table 16).

LEVEL	SP TOOL
Provincial level	Izmir Disaster Risk Reduction Plan
	Izmir Green City Action Plan

Table 3. Relevant SP tools for Seferihisar OL for Activity 2.1

The first is the *Izmir Disaster Risk Reduction Plan*, which analyses risks and hazards in Izmir, considering also the impacts of disasters. This plan takes into account the consequences of a natural event, such as an earthquake, on heritage places and conservation areas, to define policies and measures to improve the resilience in Izmir.

The second is the *Izmir Green City Action Plan*. It contains assessments of the existing situation in terms of threats and risks, especially those linked to negative impacts of CC on CNH. The plan assesses also the difficulties and challenges of Izmir Metropolitan Municipality.

Regarding the second phase, it is possible to say that Seferihisar OL has useful data, to gather information about hazards, risks and vulnerabilities to address in its territory. However, it is necessary to specify that fluctuating population, in the touristic summer town, and the lack of an agency about population is a vulnerability factor, that means community measures are difficult to implement. Due to a lack of data, a comprehensive planning is not always possible.

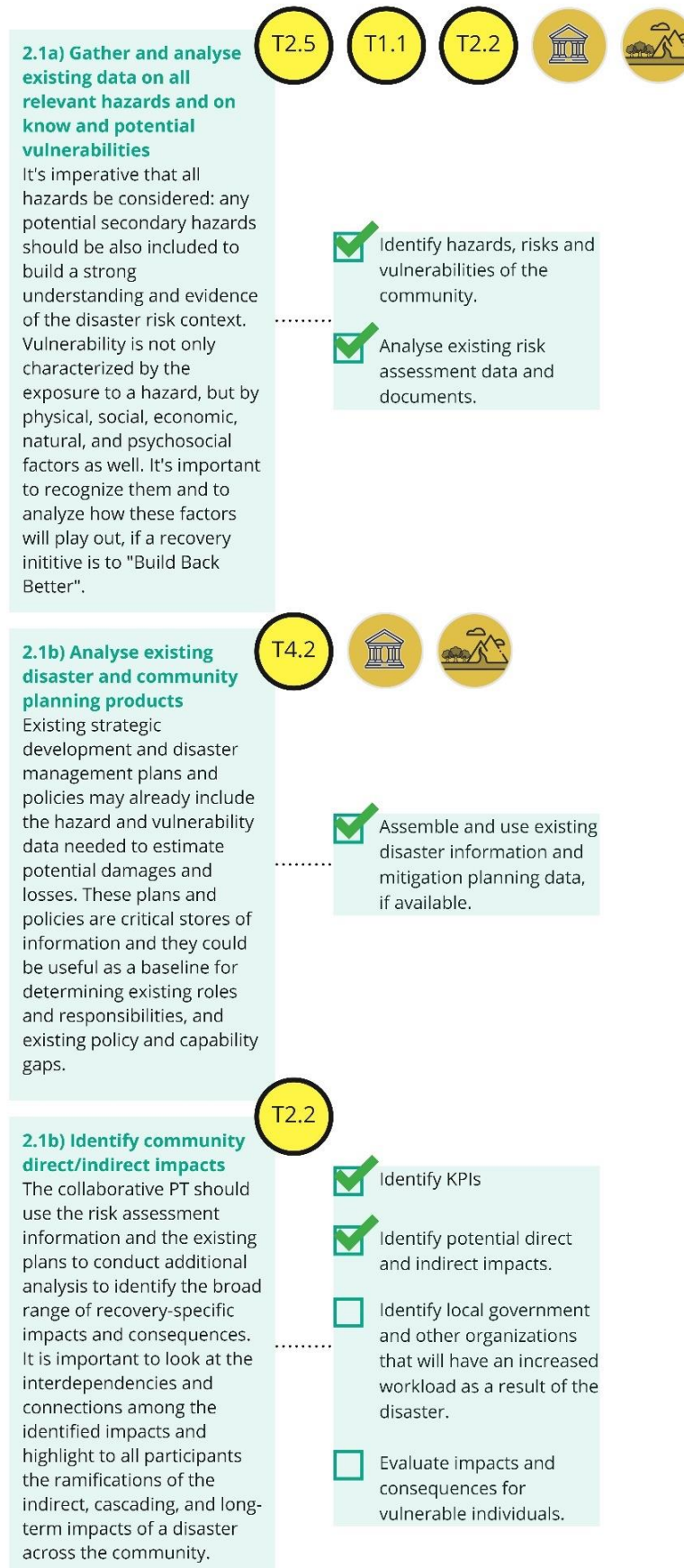


Figure 7. Key-activity 2.1 for Seferihisar OL

1.1.3 PHASE 3 – FORMULATING RECOVERY GOALS AND PRINCIPLES

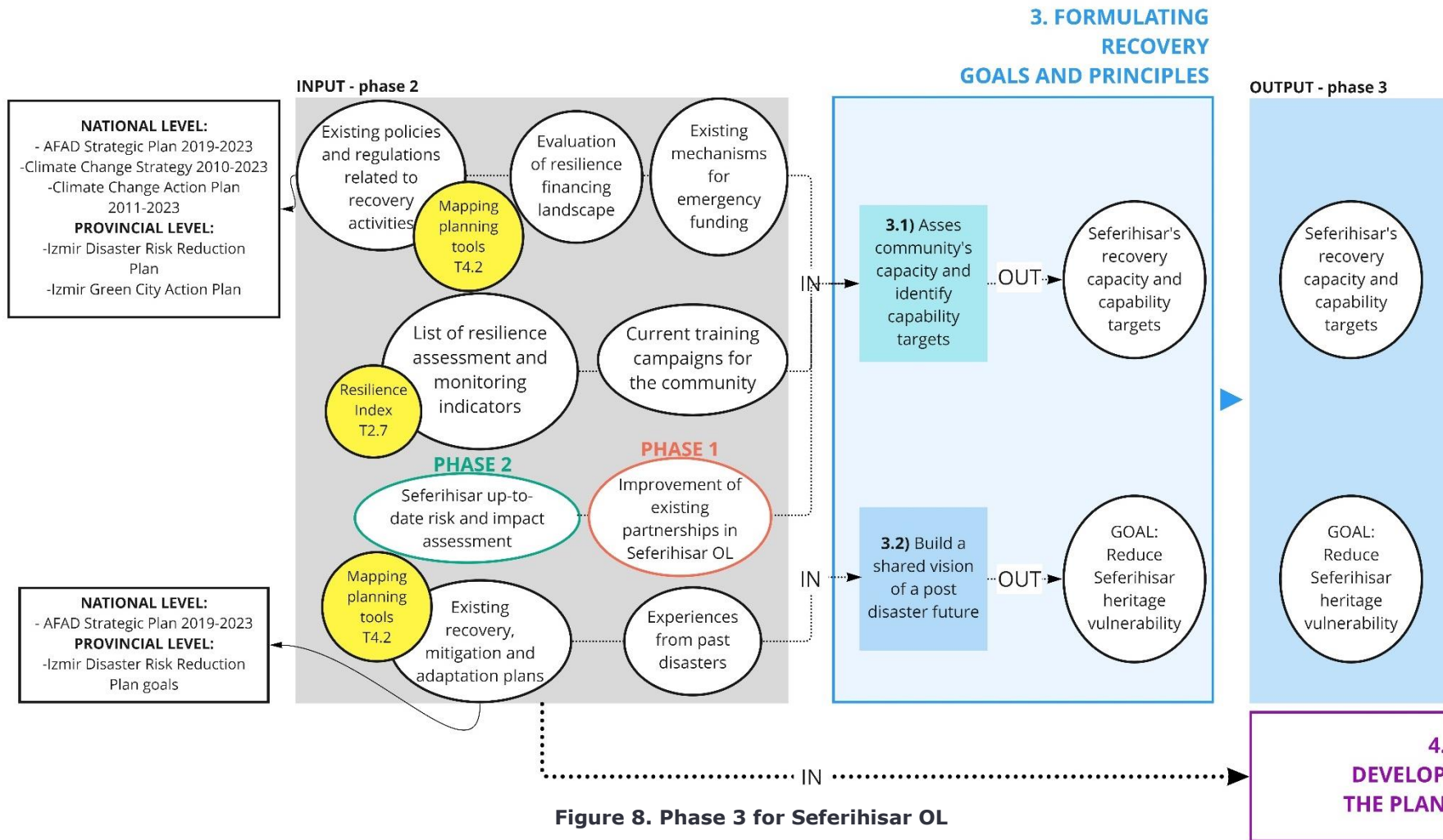


Figure 8. Phase 3 for Seferihisar OL

Activity 3.1 – Assess community’s capacity and identify capability targets (Figure 63)

Based on the risk assessment of the previous phase, this activity is to evaluate the strengths and weaknesses of existing DRM operations and organizations.

First of all, it is possible to take relevant information from some planning tools collected in Task 4.2, related to recovery activities.

The most important tools are the followings (Table 17).

LEVEL	SP TOOL
National level	AFAD Strategic Plan 2019-2023
	Climate Change Strategy 2010-2023
	Climate Change Action Plan 2011-2023
Provincial level	Izmir Disaster Risk Reduction Plan
	Izmir Green City Action Plan

Table 4. Relevant SP tools for Seferihisar OL for Activity 3.1

From SHELTER, the available input is:

- Resilience Index, that provides a list of resilience assessment and monitoring indicators

In this step, it is relevant to take into account all the previous assessments, regarding threats, risks and impacts that the community should address. Also, the partner engagement strategy, developed in phase 1, is helpful to evaluate staffing resources, in terms of quantity and expertise, and the financial resources available, identifying potential community needs and gaps.

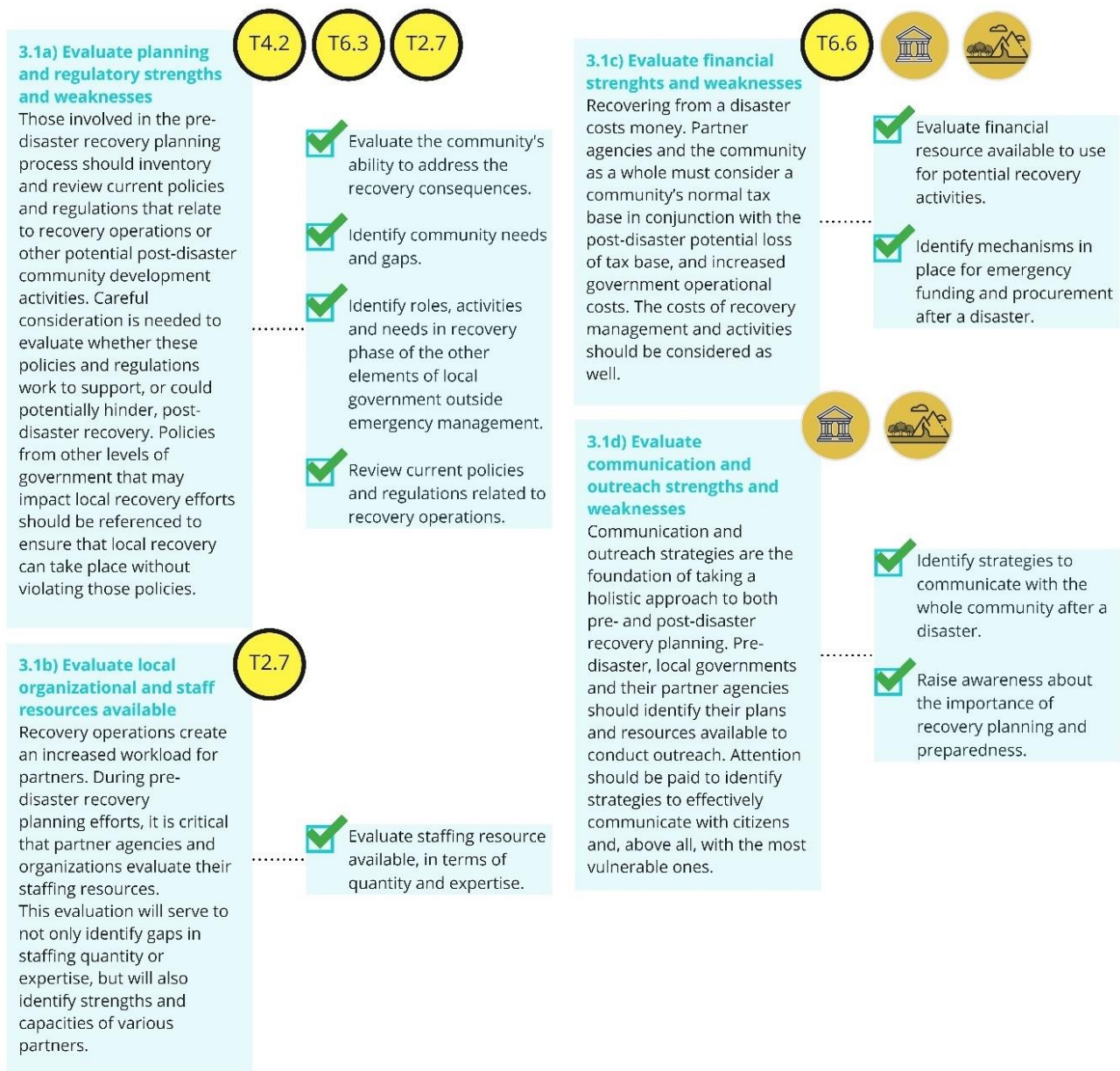


Figure 9. Key-activity 3.1 for Seferihisar OL

Activity 3.2 – Build a shared vision of a post-disaster future (Figure 64)

The main potential recovery goal for Seferihisar OL could be to reduce Seferihisar cultural heritage vulnerability. This goal coincides with the overall aims and the objectives of the following planning tools (Table 18).

LEVEL	SP TOOL
National level	AFAD Strategic Plan 2019-2023
Provincial level	Izmir Disaster Risk Reduction Plan

Table 5. Relevant SP tools for Seferihisar OL for Activity 3.2

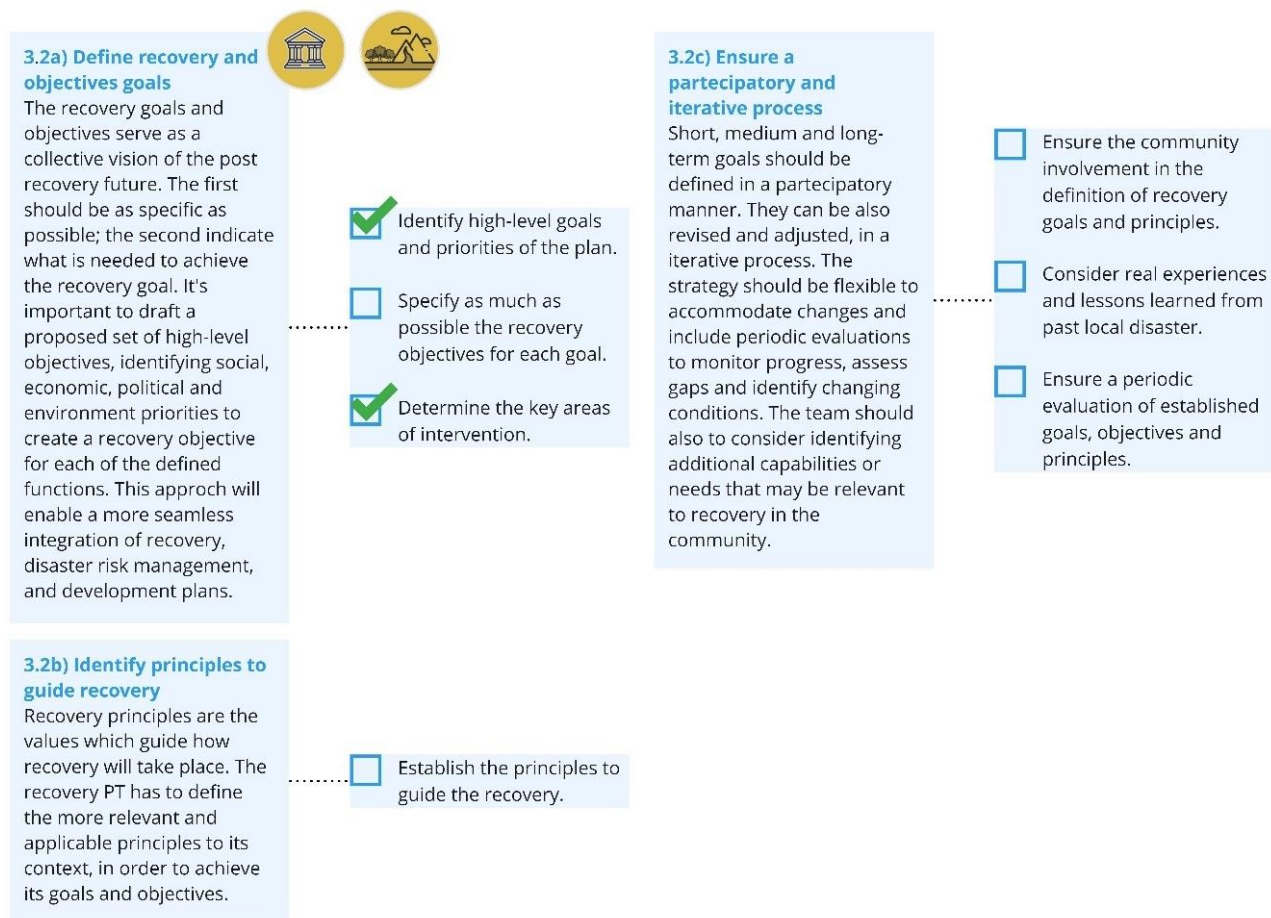


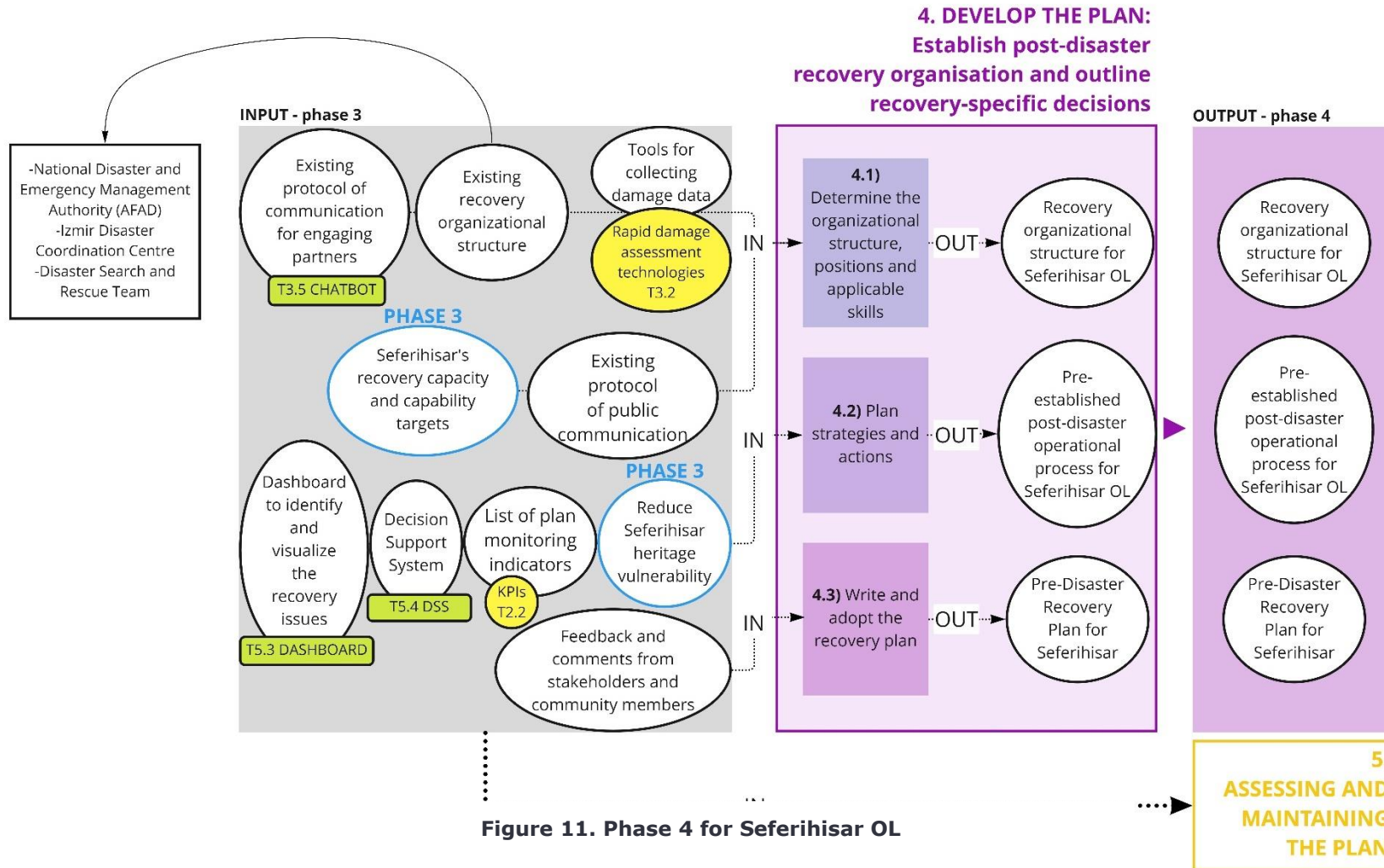
Figure 10. Key-activity 3.2 for Seferihisar OL

Regarding the third phase, in Seferihisar OL it is possible to identify some gaps and potential needs.

First of all, there are gaps in the legislation, since many plans are on paper, but not translated into action, due to the planning process is often led by the national government, but the execution is left to local governments.

In addition, there are difficulties in communication both among partners and institutions: for example, the priorities of the funders are often not in line with HA managers. The stakeholders involved in the OL highlight that some mistakes are repeated and lessons learned are not translated into action.

1.1.4 PHASE 4 – DEVELOP THE PLAN: Establish post-disaster recovery organisation and outline recovery-specific decisions



Activity 4.1 – Determine the organizational structure, positions and applicable skills (Figure 66)

Those involved in the planning process should start by evaluating the existing recovery organization.

In Turkey, AFAD, the Disaster and Emergency Management Presidency, is the institution working to prevent disaster and minimize disaster-related damages. As said above, AFAD has to coordinate all emergency and recovery actors. Under its control, there are search and rescue units, like the Izmir Disaster Coordination Centre and the Disaster Search and Rescue Team, , that also coordinate NGO's that volunteer for rescue efforts.

All the procedures of communication among partners and with local communities are established at a central level. The national government is also responsible for developing tools for collecting damage data. However, thank to the collaboration of NGOs, mapathones are also held.

From SHELTER, the available input is:

- Chatbot, that can be used as protocol of communication for notifying and engaging recovery partners.

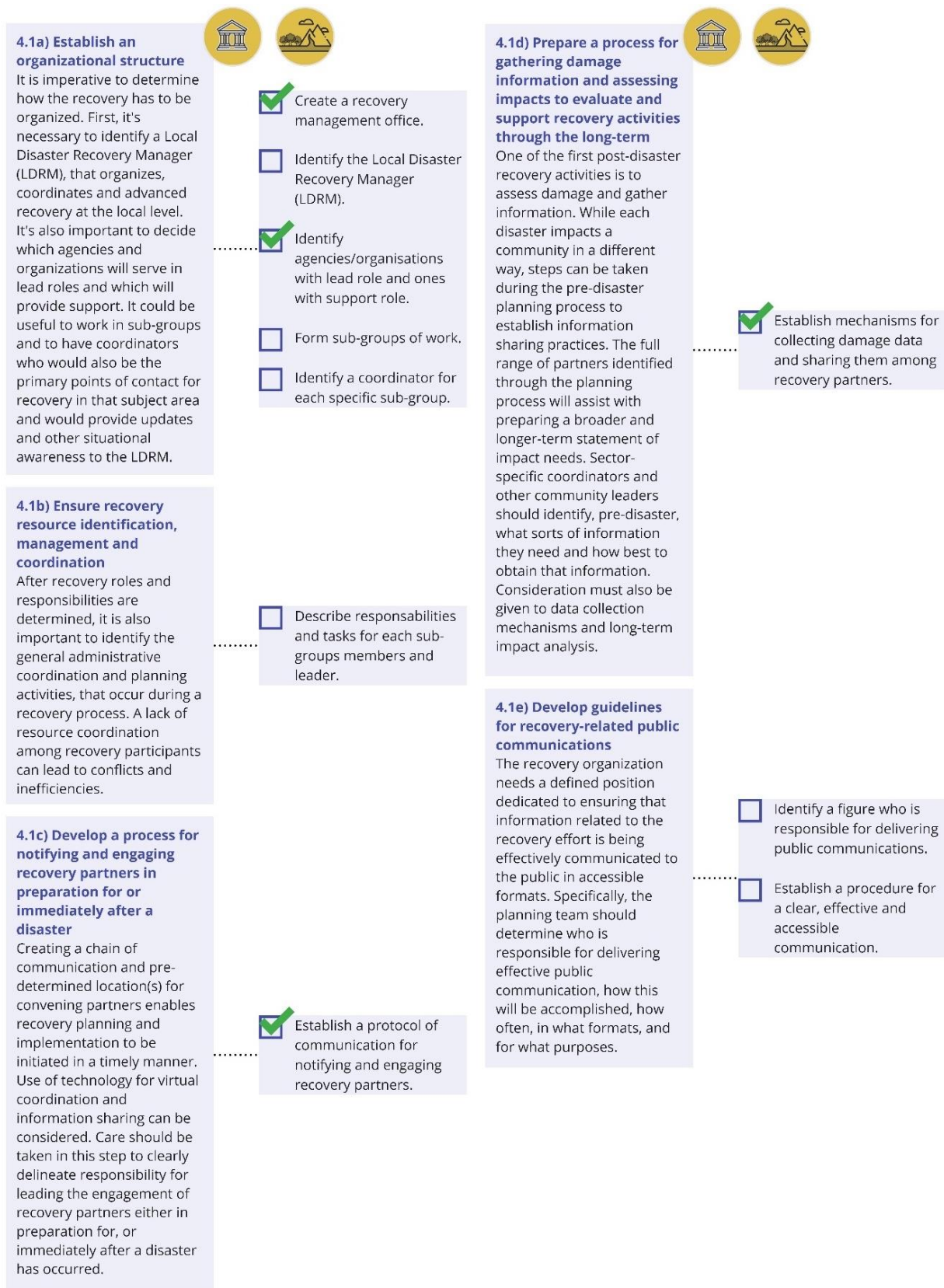


Figure 12. Key-activity 4.1 for Seferihisar OL

Activity 4.2 – Plan strategies and actions (Figure 67)

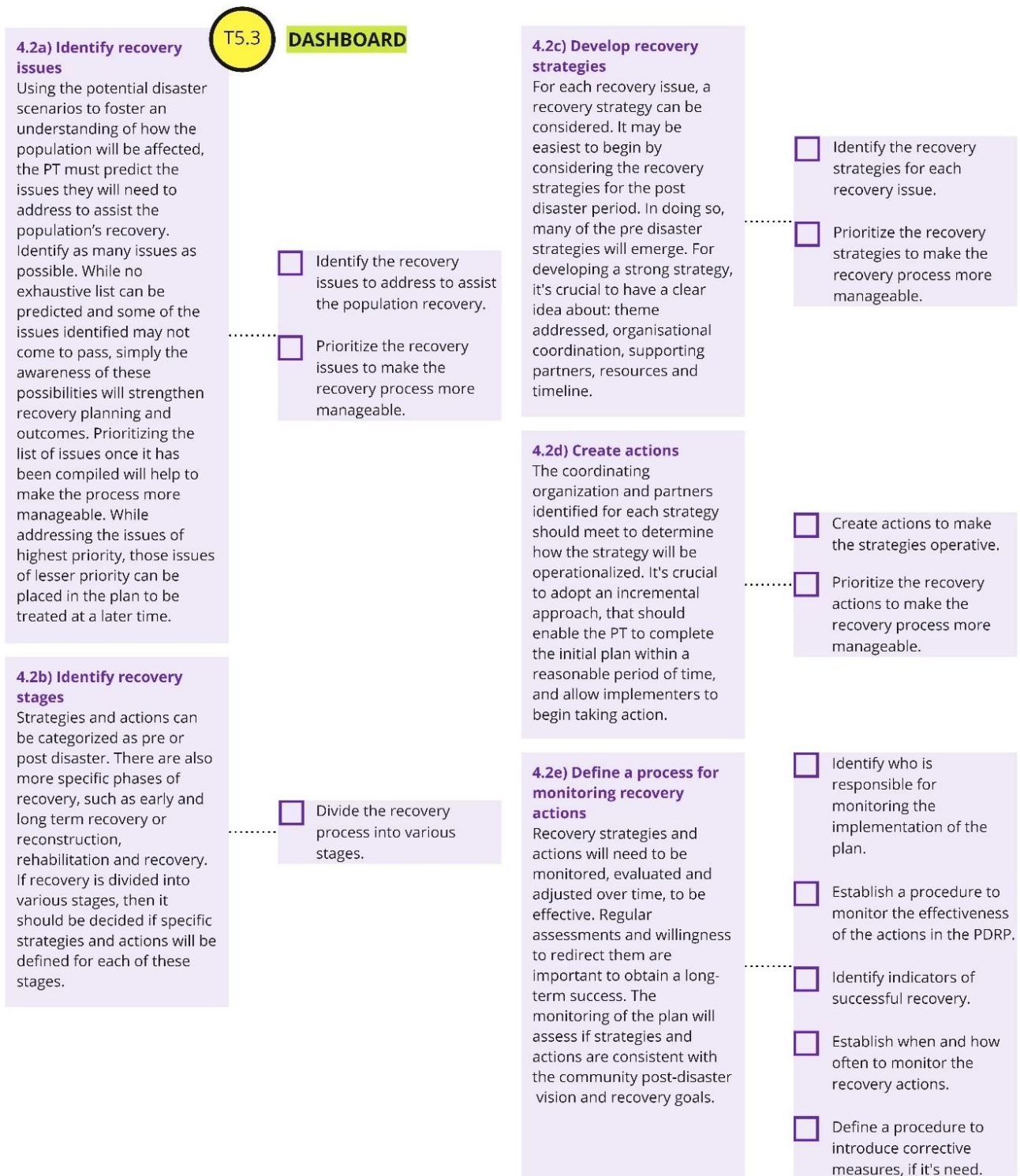


Figure 13. Key-activity 4.2 for Seferihisar OL

Activity 4.3 – Write and adopt the recovery plan (Figure 68)

If the community needs to develop a new PDRP, all information, documents and decisions made in the previous phases have to be gathered to form a new written plan.

When the plan is adopted, the whole community is invited to review and provide feedback before the final approval of the document. After an appropriate period of time to allow feedback, planners need to hold hearings to assess all observations from the community and modify the PDRP, if necessary. Once the plan has been corrected, there is the final approval phase of the planning process and the consequently release.

As mentioned above, the public participatory of documents is mandatory, even if the community does not participate in co-design processes.

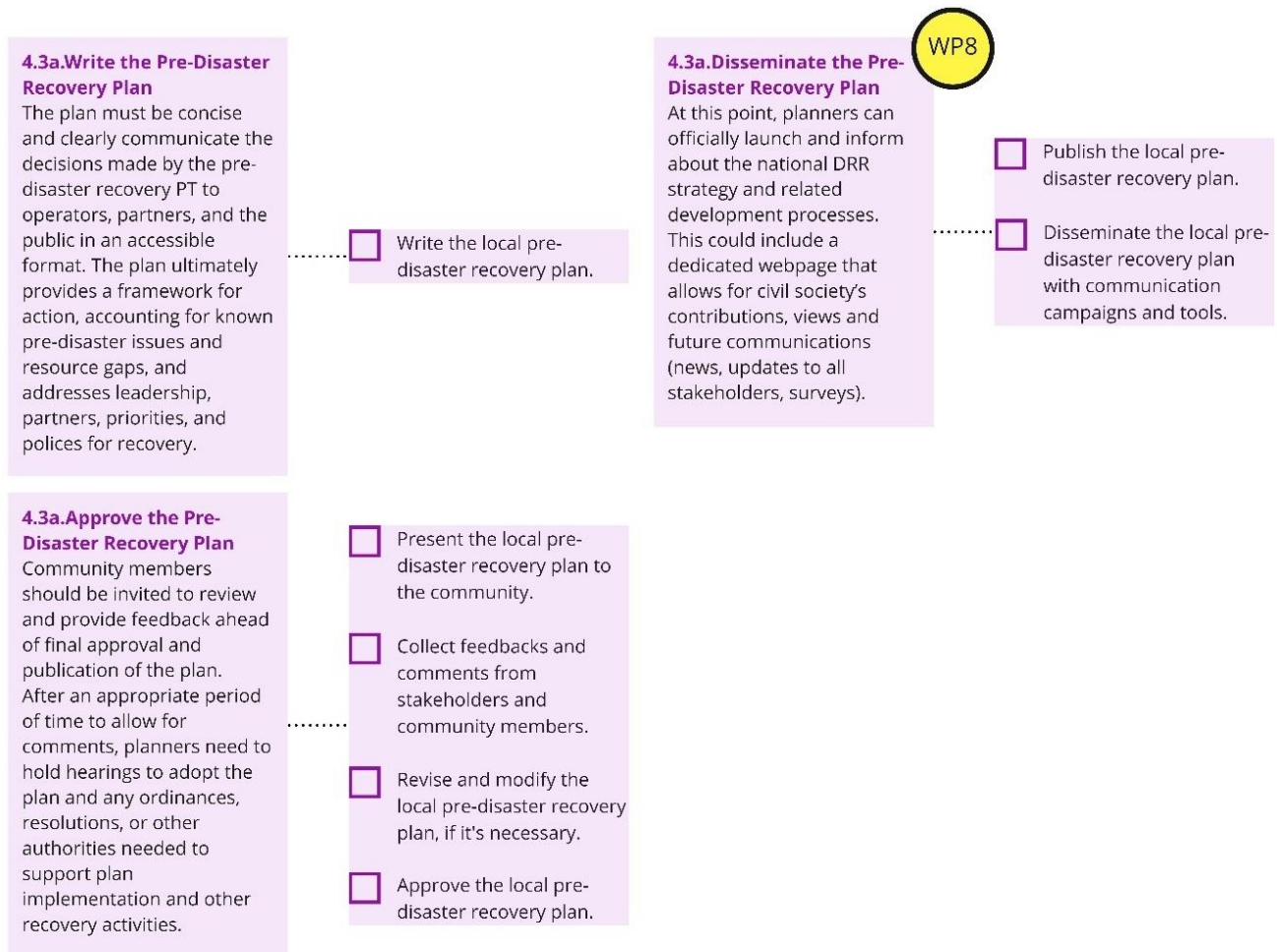


Figure 14. Key-activity 4.3 for Seferihisar OL

Regarding the fourth phase, in Seferihisar OL is not possible to recognize an effective post-disaster operational process, already developed. The OL needs to plan its recovery strategies and actions, to write and approve a PDRP.

1.1.5 PHASE 5 –ASSESSING AND MAINTAINING THE PLAN: review and update

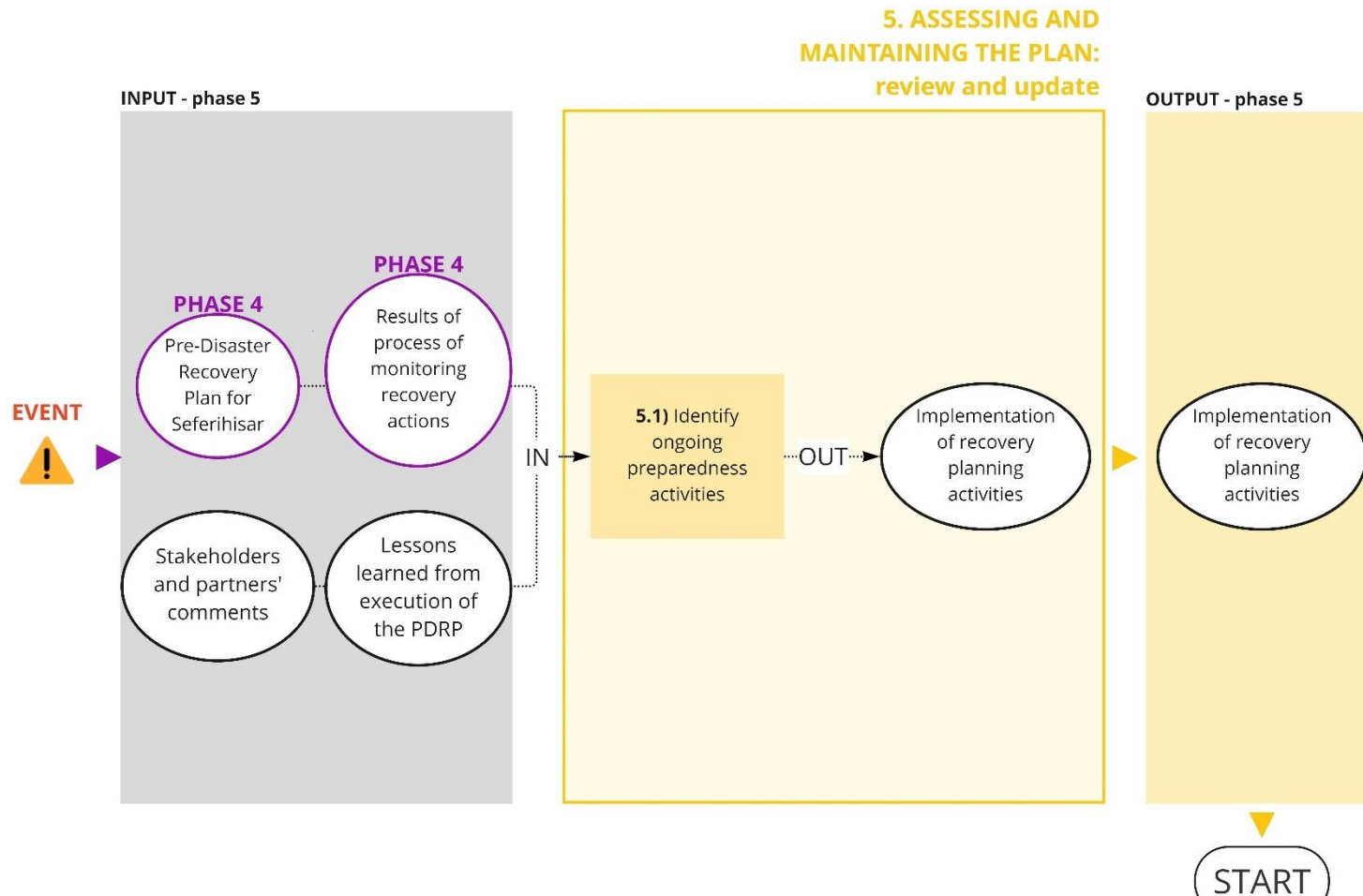


Figure 15. Phase 5 for Seferihisar OL

Activity 5.1 – Identify ongoing preparedness activities (Figure 70)

Phase 5 is made to encourage planners to identify training and exercise opportunities, and to establish a schedule for revision and review of plans. Reviews and revisions of PDRPs are based on real world events, such as wildfires, exercise experiences or lessons learned by other jurisdictions.

Ongoing activities ensure that recovery stakeholders are able to effectively manage post-disaster recovery activities (FEMA, 2016).



Figure 16. Key-activity 5.1 for Seferihisar OL

Another important ongoing preparedness activity is the regular evaluation and review of the PDRP, policy documents and ordinances, because capabilities, threats, hazards, and vulnerabilities of the community may gradually change over time and a plan update can be necessary. Changes in the PDRP may also be done to comply with new governments regulations and laws. Furthermore, lessons learned from execution of the plan in a post-disaster phase should be documented to guide future revisions of the plan.

1.1.6 Summary of the Early Recovery Roadmap for Seferihisar OL

Figure 71 shows the progress of Seferihisar OL for each phase of the PDRR, through a qualitative indicator in the form of a loading bar.

In addition, the following summary list (Table 19) is helpful to identify which activities are already done and which not, to highlight the complete aspects and the pending ones in the process of PDRP for Seferihisar OL.

PHASE 1	
complete sub-activities	1.1a) Define the scope and timing of recovery planning activities 1.1b) Determine whether existing community planning documents can be leveraged or 1.2a) Build political support 1.2b) Ensure broad stakeholder representation 1.3a) Define the scope of stakeholder engagement 1.3b) Establish recovery activity support roles for all governance level

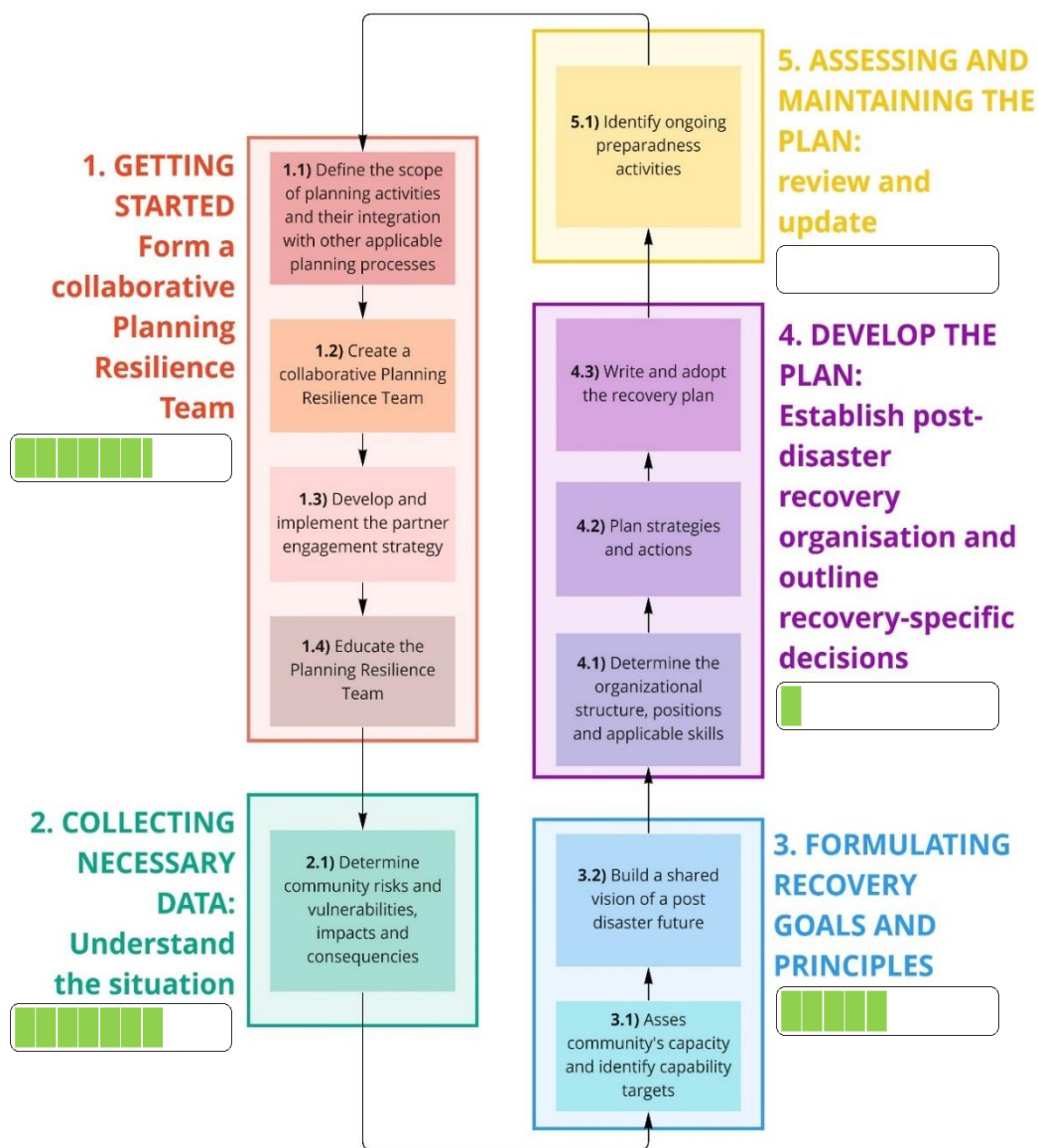


Figure 17. Progress in the PDRR for Seferihisar OL

	<ul style="list-style-type: none"> 1.3c) Establish external partnerships 1.4a) Begin with shared understanding of Pre-Disaster Recovery Planning 1.4b) Define a recognizable structures and terminology
pending sub-activity	<ul style="list-style-type: none"> Consider formal agreements with organizations that may provide or support local services in sub-activity 1.2b Align the organizations with appropriate agencies or departments that serve similar functions in sub-activity 1.2b 1.2c) Enable strong community/public participation Identify how external agencies will align with the recovery organizational structure and process in sub-activity 1.3c Identify how external organizations interact with one another in sub-activity 1.3c 1.3d) Review the core group of stakeholders
PHASE 2	
complete sub-activities	<ul style="list-style-type: none"> 2.1a) Gather and analyse existing data on all relevant hazards and on know and potential vulnerabilities 2.1b) Analyse existing disaster and community planning products 2.1c) Identify community direct/indirect impacts
pending sub-activity	<ul style="list-style-type: none"> Identify local government and other organizations that will have an increased workload as a result of the disaster in sub-activity 2.1c Evaluate impacts and consequences for vulnerable individuals in sub-activity 2.1c
PHASE 3	
complete sub-activities	<ul style="list-style-type: none"> 3.1a) Evaluate planning and regulatory strengths and weaknesses 3.1b) Evaluate local organizational and staff resources available 3.1c) Evaluate financial strengths and weaknesses 3.1d) Evaluate communication and outreach strengths and weaknesses 3.2a) Define recovery and objectives goals
pending sub-activity	<ul style="list-style-type: none"> Specify as much as possible the recovery objectives for each goal in sub-activity 3.2a 3.2b) Identify principles to guide recovery 3.2c) Ensure a participatory and iterative process
PHASE 4	
complete sub-activities	<ul style="list-style-type: none"> 4.1a) Establish an organizational structure 4.1c) Develop a process for notifying and engaging recovery partners in preparation for or immediately after a disaster
pending sub-activity	<ul style="list-style-type: none"> Identify the LDRM in sub-activity 4.1a Form sub-groups of work in sub-activity 4.1a Identify a coordinator for each specific sub-group in sub-activity 4.1a 4.1b) Ensure recovery resource identification, management and coordination 4.1d) Prepare a process for gathering damage information and assessing impacts to evaluate and support recovery activities through the long-term 4.1e) Develop guidelines for recovery-related public communications 4.2a) Identify recovery issues 4.2b) Identify recovery stages 4.2c) Develop recovery strategies 4.2d) Create actions 4.2e) Define a process for monitoring recovery actions 4.3a) Write the Pre-Disaster Recovery Plan 4.3b) Approve the Pre-Disaster Recovery Plan 4.3c) Disseminate the Pre-Disaster Recovery Plan
PHASE 5	
complete sub-activities	-
pending sub-activity	<ul style="list-style-type: none"> 5.1a) Undertake regular activities to increase preparedness

	<ul style="list-style-type: none"> 5.1b) Evaluate new vulnerabilities 5.1c) Conduct regular reviews of the Pre-Disaster Recovery Plan 5.1d) Document best practices and lessons learned
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Table 6. Completed/pending activities for Seferihisar OL

To summarise, the application of the early recovery Roadmap to the Seferihisar OL has detected that no phases can be considered as totally achieved, and only a limited number of activities and sub-activities have been completed through the provisions included in existing planning and policy instruments. Therefore, Seferihisar OL can start developing the PDRP by applying the methodology described in this report.