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Report: *Assessment workshop on the development of Pola and
Rencana in Indonesia and recommendations for training*

Bandung

12-13 November 2012

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Assessment workshop on Pola and Rencana development in Indonesia

Bandung – 12-13 November 2012

and Recommendations for training

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Contents

1 Introduction	1
2 Assessment workshop	1
2.1 Issues and suggestions for improvement	1
2.2 Workshop finding and recommendations	2
3 Suggestions training in IWRM Planning	3
4 Next steps	4

Annexes

A Detailed description suggested training in IWRM planning	5
A.1 Training A – ToT WR planning for trainers	5
A.2 Training B - WR planning for senior governmental level	7
A.3 Training C - WR planning and the supporting role of analytical tools	8
A.4 Training D - Use of analytical tools for WR planning	10
A.5 Extended training	11
B Outcome of Assessment Workshop	13
B.1 Introduction	13
B.2 Introductory presentations	13
B.3 Issues raised and suggestions for improvement	15
B.4 Priority ranking of issues according to various discussion groups	20
B.5 Summary of workshop findings and recommendations	22
C Participants Bandung workshop 12-13 November 2013	25
D Programme Bandung workshop 12-13 November 2013	27

1 Introduction

DG Water Resources of Ministry PU, ir. Moh. Hassan, has requested the Joint Cooperation Programme (JCP) to provide a Training-of-Trainers (ToT) in IWRM planning. This training should be based on the planning approach (Pola, Rencana) that is presently being followed in Indonesia. This planning approach is still evolving and, where needed, can and will be adjusted based on the experiences with the first Pola's and Rencana's.

Initially, only a ToT has been asked for. The idea was that a one-week ToT would be given by Netherlands experts to about 10 senior governmental officials, the trainers. This should be followed by a 2 week training provided by the trained seniors to one or more groups of governmental staff members and consultants involved in Pola and Rencana development. During discussions with various PU staff, a broader need for training was brought up, and options were identified. In order to make use of the experiences with developing the present generation of Pola's and Rencana's it was decided to organize an assessment workshop. This report describes the results of this workshop (section 2) and the recommendations made by JCP for the actual training (section 3).

2 Assessment workshop

As part of the preparatory process for the development of the ToT an assessment workshop on Pola and Rencana development was organized on 12 and 13 November 2012 in Bandung on lessons learned from the first Pola's and Rencana's and possible ways to improve the current approach. In total about 40 people participated in and contributed to the workshop (see Annex C). The participants all had been involved in developing the present Pola's and Rencana's and came from DGWRD, various BWS/BBWS, provinces, academia and consultants. In addition some resource persons were invited with more general experience in IWRM planning in Indonesia.

The results of this assessment workshop are described in detail in Annex B. This section provides describes the main findings.

2.1 Issues and suggestions for improvement

After some introductory presentations on IWRM planning in general and the current status of Pola and Rencana development in Indonesia the participants were asked to raise the issues they had faced in Pola and Rencana development. The points they brought forward are described in detail in section B.3. The main issues were grouped under the following 7 headings:

1. The process of getting to a Pola and Rencana
 - role of the plans, approach of planning, time available, need for guidelines and training, link with other planning processes, etc.
2. Clarity of strategic choices in the Pola

- the (most important) issues to be included, need for clear objectives and targets, strategic choices to be made
3. Analysis approach
 - approach and terminology of various plans differ, lack of clear guidelines
 4. Methods and models for planning
 - confusion about the level of detail, translation of WS results to kabupaten/kota level, uniform set of methods and tools
 5. Basic information
 - quantity and quality of basic data, the need for a data clearing house
 6. The relation with plans / programs for other sectors and relation with national objectives and programs
 - link of Pola and Rencana with other governmental plans, need for a top-down specification of objectives and targets (national, island, WS)
 7. The capacity for planning
 - need for specific training of staff of government, consultants and TKPSDA on content and their roles

The issues were discussed among the participants. After identifying the full list of issues, five groups of participants were asked to select the five most important ones. The results of the groups were presented plenary and discussed. The results of each group are given in Annex B.4. These results show that the groups had different priorities. Time was lacking to reach consensus of the participants on the overall top priorities.

2.2 Workshop finding and recommendations

The concluding session of the workshop stressed that the implementation of the IWRM planning of the Pola and Rencana should be seen as a learning process. This workshop was a step in that learning process: the participants learned from each other's issues and they heard suggestions for improvements. Based on these lessons learned suggestions were made on improvements of the approach and process. An overview of the most important suggestions is the following:

1. Focus the Pola on main strategic issues, incl.
 - move the selection of strategy to the end of the Pola process
 - include benefit and cost information of the main infrastructural measures in the Pola
2. Adjust the Pedoman on Pola and draft Pedoman on Rencana
 - to reflect the above
 - to simplify the process
 - to describe the required minimum level of detail for information collection
3. Provide analytical support for the preparation of Pola and Rencana (data, tools, etc.)
4. Provide capacity building and training
5. Specify the relation with plans of other sectors and the national objectives (top down from national to islands to basins)

3 Suggestions training in IWRM Planning

An important conclusion of the workshop was that training is needed at various levels. Based on the outcomes of the Assessment Workshop in Bandung recommendations are made in this section on this training. The following target groups for this training can be distinguished:

- senior 'trainer' level (ToT)
- senior governmental level, involved in decision making about Pola's and Rencana's
- medior and senior governmental level, involved in the guidance of preparing the Pola's and Rencana's
- junior governmental staff and consultants, involved in the preparation of the Pola's and Rencana's

Each group requires a separate training program. This section provides an overview of the content of these possible training programs:

Training A. ToT WR planning

- target group: senior 'trainer' level
- training will focus on the WR planning approach and the role and usefulness of analytical tools in the planning process
- will include the development and transfer of training material (text, Powerpoint presentations, exercises, etc.) to the trainers, so that the trainers can use those when they provide training to others
- 1-week course

Training B. WR planning for senior governmental level

- target group: senior governmental staff involved in decision making on the Pola's and Rencana's (e.g. from BAPPEDA, governors office, Ministry PU)
- training will focus on the objectives and use of the plans, the WR planning approach and the decision making processes on the plans
- An option for this course is to also invite senior representatives from Ministries that ideally should be part of the Pola / Rencana development and application process, like Agriculture, Forestry, Environment, and possibly Energy (regarding Hydropower development).
- 1-day 'course'

Training C. WR planning and the supporting role of analytical tools

- target group: medior and senior governmental staff involved in the guidance of the preparation of the plans (typically staff members of the Balai and possibly members of the TKPSDA)
- training will focus on the objectives of the plans and the WR planning approach and will give an overview of the kind of tools that can (and should) be used in preparing the plans
- 1-week course, including exercises

Training D. Use of analytical tools for WR planning

- target group: consultants and junior governmental staff involved in the analysis to be carried out to prepare the plans and the actual drafting of the plans
- training will give an overview of the objectives of the plans and focus on the WR planning approach (the analysis steps) and the actual use of the tools that should be

used in preparing the plans (i.e. to determine the water balance, water allocation, economic analysis)

- 2 until 4 week course, actually carrying out a planning analysis for a specific case and including hands-on exercises with tools

It could be considered to combine the training courses C and D by having the participants of training C to 'guide' the planning process carried out by the participants of training D at specific steps in the process. It is expected that international consultants will take care of training A. The other trainings will be given by Indonesians trainers (partly the participants of training A) with possibly support of some international expertise.

A more detailed description of the recommendations on the set-up of these courses is given in Annex A.

4 Next steps

The results of the Assessment Workshop and above recommendations for training are put at the discretion of DGWRD to take into account in programming their activities for completing the present generation of Pola's and Rencana's and the support they will provide to the various actors involved. This might include links with on-going programs such as BWRM and BWRMP. Specific activities on IWRM planning might also be included in the 2013-2015 program of JCP that is in presently in preparation.

A Detailed description suggested training in IWRM planning

A.1 Training A – ToT WR planning for trainers

A.1.1 Set-up

The set-up of this training is to actually provide a ToT (Training of Trainers). These trainers will consist of a group of about 10 senior governmental (incl. Jafung) and academic professionals with extensive experience in IWRM planning. The objective is that this ToT will enable these professionals to act as trainers for the other courses. To this end content of the course will contain the following components:

- WR planning and supporting tools (the content)
- curriculum development (how to train)
- training material (cases, lecture material, exercises)

The course will be given by international consultants with extensive experience with IWRM planning in Indonesia (e.g. Prof. Eelco van Beek and ir. Jos Dijkman), supported by Indonesian experts in this field (e.g. ir. Rustam and ir. Nidhom).

The set-up of the course will be to follow the Pola-Rencana process as presently being followed in Indonesia, possibly adjusted somewhat based on the experiences of the first Pola's and Rencana's (see Annex B). This includes the institutional setting of the various basin types, the phasing of both Pola and Rencana (preparation, drafting and determination), and the activities in each phase and the stakeholder interaction included (PKM's). Use can be made of the set-up and structure of existing manuals on RBM planning such as the Training Manual and Operational Guide of GWP (March 2005) and the IWRM Guidelines at River Basin Level of UNESCO/NARBO but the actual content and terminology should be adjusted to what is being described in the Pola and Rencana guidelines.

A.1.2 Overview of course A

A first overview of the set-up of this training is given below. The training will take a particular case (basin) as example. This case will be used during the entire week to illustrate the lectured material, including the quantification involved.

Day 1: Purpose of WR planning and approach

- IWRM – concepts and developments
- River basin approach in Indonesia
- Planning process in Indonesia (set-up of Pola and Rencana)
- Analysis steps and terminology (scenario, strategy, criteria, etc.)
- Description of the 'case'

Day 2: Pola – how to develop

- Objectives
- Scenario development
- Problem statement
- Inventory and evaluation of measures
- Development of alternative strategies

- Analysis of alternatives
- Stakeholder involvement and decision making

Day 3: Rencana – how to develop

- Rencana process (detailing, analysis, etc.)
- Detailing the measures, evaluation measures/projects at pre-feasibility level
- Development of consistent set of measures (i.e. the actual Rencana)
- Implementation planning
- Stakeholder involvement and decision making
- Monitoring and adjusting implementation

Day 4: Tools

- The use of computers models and data systems in IWRM
- Introducing the JIWM modules (2002 version to be updated in BWRMP)
- Data-systems / MIS
- Exercises with demand modules
- Exercises with water allocation model (RIBASIM)

Day 5: Tools continued and Curriculum development

- Economic analysis tools (I/O, B/C, MCEM, etc.)
- Decision support systems (integrated models)
- Basics of curriculum development
- Basics of teaching

During the training quite some time will be devoted to discussion between the 'lecturers' and the 'trainees' on the best way to transfer the knowledge to the target groups of trainings B till D. This will specifically be the subject of the afternoon of day 5 (curriculum development and basics of teaching) but will also be addressed in each of the other subjects being treated in days 1 till 4.

A.2 Training B - WR planning for senior governmental level

A.2.1 Set-up

The objective of this one day 'course' is to explain the Pola and Rencana planning approach to senior governmental staff members that are involved in decision making on the Pola's and Rencana's. The day should convince these staff members of the usefulness of the WR planning approach and make the link between WR planning and other fields of governmental interest such as spatial planning, economic growth, food and energy security etc. The course should also make the link between the plans (in particular the Rencana) and the budgets that should be made available to the respective governmental agencies that have to implement the various measures that are included in the Rencana.

The participants of the course should be those governmental staff members that are not familiar yet with the Pola and Rencana or not convinced of the usefulness of these plans for their specific responsibilities. It is expected that the participants will mainly come from the provincial level (BAPPEDA, SEKDA, etc.) but may well also come from kabupaten or national level (ministries). An option for this course is to also invite senior representatives from Ministries that ideally should be part of the Pola / Rencana development and application process, like Agriculture, Forestry, Environment, and possibly Energy (regarding Hydropower development).

Given the high level of the participants the lectures should be given by professionals with sufficient seniority. Partly this can be the staff that followed the ToT but it should be considered to involve high level governmental staff from the national level (e.g. ir. Moh. Hassan) and provincial level (e.g. from Java Tengah, which seems to be a good example of how a Pola and Rencana should be developed).

A.2.2 Overview of course B

Morning

- Basic characteristics of IWRM and planning by basin
- The need and objective of WR planning through Pola and Rencana
- The different types of basin plans in Indonesia and related decision structure (legalization)
- Place in and contribution of Pola and Rencana to provincial plans (RPJM and RPJP)
- Stakeholder involvement (TKP and TKPDSA)
- Set-up of Pola and decision making on preferred strategy

Afternoon

- Set-up of Rencana (detailing, adjustment) and decision making on budgets, etc.
- Guidance structure on implementation and monitoring of implementation
- Relationship between Pola and Spatial Planning
- The link between National development Goals (a.o. food security, energy security) and Pola's
- The function of National Water Resources Council (Dewan Sumber Daya Air Nasional) – guest speaker from DSDAN?

A.3 Training C - WR planning and the supporting role of analytical tools

A.3.1 Set-up

The target group of this course is the governmental staff at national, provincial (and possibly kabupaten) level which are involved in the guidance of the preparation of the plans. They should become aware of the set-up of the Pola and Rencana process and its value for regional development and growth. Moreover, they should understand the links with other governmental tasks (such as spatial planning). This is comparable with the objectives of training B. The difference between training C and training B is the depth of the training (and consequently the duration) and the fact that training C will include an overview of the analytical tools that can (and should) be used in the preparation of the Pola and Rencana. They will be exposed to these tools to the level that they understand the value of these tools and are able to guide the consultants working on the Pola and Rencana in using these tools and evaluate their results.

The training will be given by the 'trainers' that have followed the ToT supplemented by specialists in the various analytical tools, in particular from PusAir.

The 'case' as developed and used for Training A will also be used in this training for illustration purposes.

A.3.2 Overview of course C

Basically the same set-up of the course will be used as for training A (ToT) with the exception that more attention will be given to the tools that can be used in the planning and no attention will be given to the curriculum and teaching methods which are typical for the ToT.

Day 1: Purpose of WR planning and approach

- IWRM – concepts and developments
- River basin approach in Indonesia
- Planning process in Indonesia (set-up of Pola and Rencana)
- Analysis steps and terminology (scenario, strategy, criteria, etc.)
- Description of the 'case'

Day 2: Pola – how to develop

- Objectives and criteria (indicators)
- Scenario development
- Problem statement
- Inventory and evaluation of measures
- Development of alternative strategies
- Analysis of alternatives
- Stakeholder involvement and decision making
- the day will end with an exercise on objectives, criteria, scenario's and strategies

Day 3: Rencana – how to develop

- Rencana process (detailing, analysis, etc.)
- Detailing the measures, evaluation measures/projects at pre-feasibility level
- Development of consistent set of measures (i.e. the actual Rencana)
- Implementation planning
- Stakeholder involvement and decision making
- Monitoring and adjusting implementation

Day 4: Tools

- The use of computers models and data systems in IWRM
- Introducing the JIWMP modules (2002 version to be updated in BWRMP)
- Datasystems / MIS
- Exercises with demand modules

Day 5: Tools continued

- Exercises with water allocation model (RIBASIM)
- Economic analysis tools (I/O, B/C, MCEM, etc.)
- Decision support systems (integrated models)

A.4 Training D - Use of analytical tools for WR planning

A.4.1 Set-up

This training is meant for the professionals that will actually carry out the analysis for the Pola and Rencana and draft the documents. In general this will be consultants and academics but the course might also be of interest to junior staff members that want to know more about how to carry out a planning analysis and learn more about these tools.

This training will again use the same case as in training A and C. The difference with these courses is that in training D the participants will actually learn how to use the tools.

A.4.2 Overview of course D

The training will start by providing an overview of IWRM, IWRM planning and the analysis approach.

Week 1 – WRM planning analysis

- IWRM – concepts and developments
- Pola and Rencana process in Indonesia
- Analysis steps – how to carry out an analysis
- Overview of the use of computer tools in the analysis
- Determination of supply (hydrological analysis), including the actual use of hydrological tools (e.g. HYMOS and FEWS)
- Developing scenarios for the analysis

Week 2 – Water allocation

- Introduction to droughts and water allocation
- Determination of demands (in particular irrigation and DMI)
- Spatial planning aspects involved (incl. demo of Java Spatial Planning Model)
- Water allocation model RIBASIM
- Application of RIBASIM on the case – schematization, input of data on supply and demand
- Analysis of base case and reference case (for determined scenarios)

Week 3 – Flooding, water quality and erosion

- Introduction to these phenomena and tools to analyse them (SOBEK, DELWAQ, USLE)
- Exercise with SOBEK (hydro-dynamics)
- Exercise with DELWAQ (water quality)
- Exercise with USLE (erosion)

Week 4 – Analysis of alternatives

- Inventory and screening of measures
- Development of alternative strategies
- Analysis of alternatives
- Scenario and sensitivity analysis
- Evaluation of alternatives (incl. the use of scorecards and MCEM)

A.5 Extended training

In addition to above basic courses, more or less following the original set-up of the ToT, PU might consider to organize additional courses to support the Pola and Rencana planning process. This can include:

- An intensive course on IWRM planning
 - duration 3 months in which an actual analysis will be carried out, based on real data and making use of actual models
 - with two different target groups
 - junior professional staff, actually carrying out the analysis and participating for the full 3 months
 - senior decision making staff, that have to guide the analysis process, take decisions; these staff will participate only during a few days in the course, at moments when their input (guidance and decisions) are needed
 - the content of the training of the junior staff will be comparable with training D, but then in more depth and with the actual interaction with their senior decision making managers
 - the content of the training of the senior staff will be comparable with training C but this time with actual interaction with the analysts
- An extensive intermittent course
 - The course set-up is such that the course will be given in blocks of one or two weeks each. After completion of a block, the participants go back to their normal job, but they apply the course material directly for the river basin that their organization is linked to.
 - At the start of the next block of the course, the participants present the results of their exercise and can bring up any difficulties encountered.

B Outcome of Assessment Workshop

B.1 Introduction

On 12 and 13 November 2012, an Assessment Workshop on Pola and Rencana Development was held in Bandung. The objective of the workshop was:

1. to identify issues (problems) related to Pola and Rencana development,
2. to discuss which issues are priority issues, and
3. to discuss possible solutions to the problems that were identified.

In total about 40 people attended this workshop. Annex C of this report lists the attendants to the workshop. The affiliation of the participants is as follows:

- Director Water Resources Management, Ministry of Public Works (Pekerjaan Umum / PU)
- Sub-directorate Planning of Water Resources (PeRencanaan Wilayah Sungai / PWS)
- BWS / BBWS
- Provinces
- Academia
- Consultants
- Resource Persons (retired PU-staff).

The PU sub-directorate PWS provided funding for this workshop and provided logistical support. Mr. Emir Faridz served as moderator of the presentations and discussions.

This workshop was the first meeting since legislation requires the drafting of Pola and Rencana in which participants from PU, provinces, academia, consultants and resources persons came together. The atmosphere was very lively, and each participant had an opportunity to address their concerns and suggestions. Without exception, the discussions were all with a positive attitude and constructive.

Two main agenda topics were:

1. Introductory presentations
2. Brief presentations (the total number was over 20) of positive and negative experiences and ideas for improvement;
3. Group discussions about a top five list of priority issues; and
4. Summarizing and concluding discussions.

The full agenda of the workshop is attached to this report as Annex D.

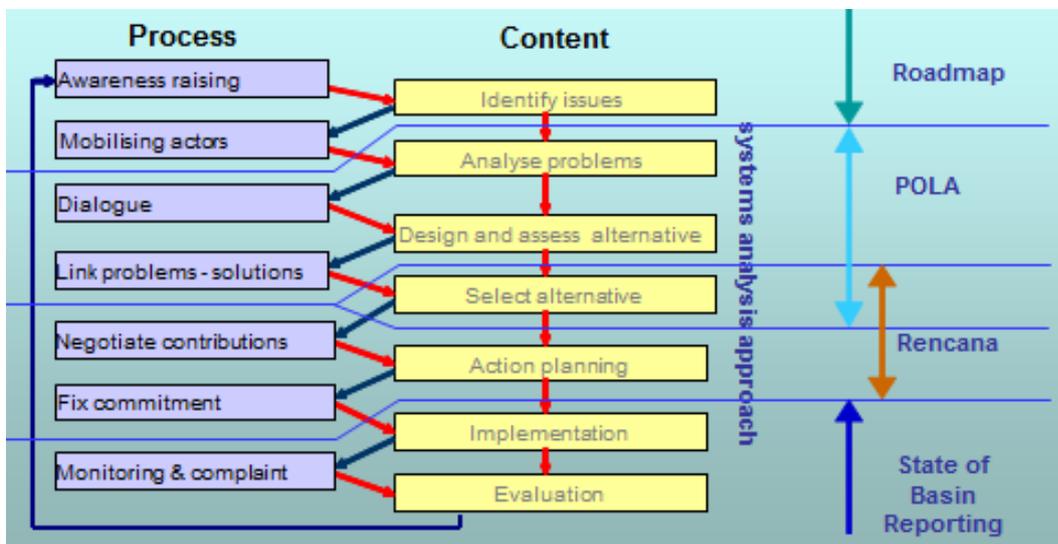
B.2 Introductory presentations

As an introduction, prof. van Beek presented his perspective on international developments in Integrated Water Resources Management (IWRM) in relation to the Pola/Rencana. Main points of this presentation:

1. The generally accepted definition of IWRM: *a process which promotes the coordinated development and management of water, land and related resources, in*

order to maximize the resultant economic and social welfare in an equitable manner without compromising the sustainability of vital ecosystems. (Global Water Partnership / GWP, 2000)

2. IWRM is not new; the first applications were in the 1980's (also in Indonesia, for example the BTA-155 project for the Ciujung–Cimanuk area). By now, some 80% of all countries in the world apply IWRM, with:
 - a. national water resources management plans
 - b. river basin plans (Indonesia: Pola and Rencana)
 - c. river basin organisations
3. The process of reaching Pola and Rencana is summarized in the following figure:



4. Over the years, there has always been criticism on IWRM, including points like:
 - a. Too high expectations – will it solve all our problems?
 - b. Too much focus on process
 - c. Too complex – can we handle it?
 - d. IWRM approach is not realistic
 - e. There is a gap between planning and implementation
5. Over the years, there has also been a shift in the attention for specific topics. Recently, much attention / discussion is devoted to:
 - a. *Water Security: the availability of an acceptable quantity and quality of water for health, livelihoods, ecosystems and production, coupled with an acceptable level of water-related risks to people (Grey and Sadoff , 2007).*
 - b. *The so-called Water-Food-Energy Nexus: the link between water resources management, food production, and energy consumption in water related sectors and energy generation.*
6. In response to those points of criticism, it is important to point out that:
 - a. IWRM should be seen as cyclical process, so imperfections in the current Pola/Rencana can be improved in the next cycle, 5 years later.
 - b. IWRM should be seen as a means (process), not a final objective. The ultimate objective of IWRM is to have sufficient water of good quality for

- people and the environment, to protect people from risks, and to avoid conflicts between water users. All in all, there is a shift in attention from IWRM as a process to Water Security as an objective.
- c. Some points of criticism are valid, but can be addressed from within the concept of IWRM.
7. Main messages for Pola/Rencana development from the point of view of IWRM:
- a. be realistic, pragmatic and adaptive
 - b. focus on stakeholders and implementation
 - c. (start to) move away from too much attention for only water and devote more attention to the real objectives of water management: food security, energy security, and health.

A second introductory presentation was given by the sub-directorate PWS. This presentation provided an overview of the current status of Pola and Rencana development. In summary:

- Early in 2012, Keppres no. 12/2012 was issued. In this Keppres, the number of WS in Indonesia was changed from 133 to 131.
- The classification of these 131 WS is:
 - 5 WS with international connection (to be approved by PU Pusat)
 - 29 WS in more than one province (to be approved by PU Pusat)
 - 29 WS of strategic national importance (to be approved by PU Pusat)
 - 53 WS in more than one Kabupaten/Kota (to be approved by the Province)
 - 15 WS fully within a Kabupaten/Kota (to be approved by the Kabupaten/Kota)
- PU Pusat is involved in 63 Pola's (5+29+29). Of these 63, only 13 are approved, 2 are currently under legal review, many are currently being developed, 1 Pola drafting has not started yet (Sumbawa).
- Of the 53 Pola's under responsibility of provinces 3 have been approved by the Governor involved, 29 Pola processes have not yet started, 15 are currently being drafted, 6 are under review.
- Of the 15 Pola's within a Kabupaten/Pola: to date none of the Pola processes has started.
- A Pola for all 131 WS is expected to be finished by the year 2015.
- Regarding the drafting of Rencana: 40 have not been made yet; 5 have already been discussed with the Technical Team, 9 are in the First Phase of the rencana-process, and 9 are in the Second Phase.

B.3 Issues raised and suggestions for improvement

This section briefly summarizes the issues that were raised and the suggestions for improvement. We chose not to report in detail who presented which issue or suggestion because that would result in a very long report and an almost verbatim report of the workshop. Instead, we have grouped the points that were brought forward under a number of headings in order to improve readability. This grouping is under the following headings:

1. The process of getting to a Pola and Rencana
2. Clarity of strategic choices in the Pola
3. Analysis approach

4. Methods and models for planning
5. Basic information
6. The relation with plans / programs for other sectors and relation with national objectives and programs
7. The capacity for planning

B.3.1 The process of getting to a Pola and Rencana

1. About the role and importance of Pola and Rencana:
 - a. Amongst the parties involved, there is not a shared opinion about the role and importance of the Pola. Examples:
 - i. Some parties see it the Pola and Rencana as “a document that has to be drafted for Jakarta”.
 - ii. Some parties are not fully aware that a Pola and Rencana are required.
 - iii. The Pola and Rencana were expected to show unique characteristics for each WS and they sometimes or often do not.
 - b. Suggestion for increased awareness of the importance of Pola and Rencana: link the annual budget for Balai’s to the proposed projects in the Pola/Rencana.
2. There is confusion about the exact position of Pola and Rencana when compared to the internationally used terms reconnaissance study, pre-feasibility study, feasibility study, and detailed design.
3. There is hardly any involvement of private parties in the measures proposed (for example public-private partnerships).
4. About the TKPSDA and PKM:
 - a. It proves difficult and time consuming to set up a TKPSDA, in particular to get members representing NGO’s (for example: Citarum). And TKPSDA-members initially are not fully aware of the Pola and Rencana importance and process.
 - b. TKPSDA have frequent meetings, but do not provide concrete suggestions to improve the Pola and Rencana.
 - c. In order to get more concrete comments in the Public Consultation Meetings (PKM), it is suggested to organize focus group discussions (FGD) before the PKM takes place.
5. About the role of consultants in the Pola and Rencana process:
 - a. There seem to be few steps (by the Balais) to increase the number of consultants that know how to produce a Pola and Rencana.
 - b. There appears to be a lack of control over the consultant’s output: regularly, the term “copy-paste” is used to describe the quality of Pola/Rencana. The capacity for drafting the ToR for the involvement of consultants in Pola/Rencana is weak, leading to situations in which the consultants are the dominant party.
6. There is no mechanism to consider options for inter-basin transfers between Wilayah Sungai’s
 - a. Suggestion: develop Pola’s at the scale of islands (like for example was done in the JWRSS project for Java and Madura) and use that as input for

Pola/Rencana at WS-level.

7. About the time available for the Pola and Rencana process:
 - a. In the annual budget cycle, there seems to be not sufficient time available for preparing Pola / Rencana in consultation with the stakeholders / TPKSDA. Generally, only about half a year available for consultants to prepare Pola / Rencana, and that seems not sufficient time for an in-depth analysis and good interaction with stakeholders.
 - b. Suggestion for improvement: split the process in various steps over multiple years.
8. About the need for guidelines:
 - a. Improved guidelines for drafting the Pola/Rencana are urgently needed.
 - b. There is confusion about the scope and depth of “basic designs” for infrastructure.
9. About the need for training:
 - a. There is not just a need to train those involved in drafting Pola / Rencana, but also a need to train the decision makers in the role of the Pola/Rencana and about quality requirements for these documents.
10. Regarding the link with Spatial Planning (RTRW)
 - a. It is noted that in drafting RTRW, water resources aspects are generally neglected or do not get sufficient attention.
 - b. It would be helpful if the guidelines for RTR) make a reference to Pola/Rencana.
11. It would be helpful if the Pola and Rencana are not just documents within PU, but also would be accepted (or even signed) by other ministries.

B.3.2 Clarity about issues, objectives, targets, and strategic choices in the Pola

1. About the issues that the pola / rencana focus on:
 - a. The list of problems (issues) is often very long: every remark from stakeholders seems to be included, and it is difficult to make a distinction between the “most important” issues that need to be addressed in the pola, and “other issues” that possibly can be dealt with at the local level.
 - b. Options for how to define “most important” issues: use a combination of:
 - Impact on a large percentage of the basin population
 - Serious impact on future functioning (e.g. reservoir sedimentation)
 - In case national or regional objectives are not met.
 - Etc.
2. About general objectives and concrete targets:
 - a. There are often no clear objectives and associated concrete targets specified for conservation and water resources utilization. Often, only generally formulated objectives are being used, which are difficult to translate into operational objectives (targets).
 - i. Example: Bappeda Jateng sets targets for rice production in each WS in Jateng. Other Bappeda’s do not specify such targets.

- b. There are also no concrete targets in the Pola that are planned to be reached regarding the destructive force of water: no target for how much flood damage should be reduced.
3. About strategic choices made in the Pola:
 - a. The measures proposed do not allow the Pola/Rencana to be used as an operational plan in the field (a plan that day to day activities can be based on).
 - b. There is hardly any priority setting in the measures mentioned in Pola's. Every comment from stakeholders seems to be included, but there is no ranking of importance.
 - c. The lists of measures are unrealistically long, and often no ranking of importance of projects.
 - d. In many Pola's it remains unclear what the main strategic choices are. The main strategic choices are hidden between many, many other issues. As a result, it is difficult to focus on the main issues.
 - e. Suggestion for improvement: add a short chapter in the Pola (not more than a few pages) that summarize the strategic options / choices in the Pola.

B.3.3 Analysis approach

1. There are a lot of differences between the various pola's regarding the Analysis Approach. We see differences in:
 - a. economic growth scenario's;
 - b. climate change scenario's;
 - c. population growth scenario's;
 - d. criteria for planning (incl. reliability criteria);
 - e. the type of water resources analysis,
 - f. the methods for calculating current and future water demands,
 - g. etc....
2. Permen 22 is not strict on the analysis required for Pola/Rencana. As a consequence, the party drafting the Pola can define which analysis to carry out.
3. There is a lot of confusion about the definition of terms like scenario, strategy, etc.
4. Reviews reveals that proposed measures are not integrated with other measures.
5. In water allocation issues, there is a lack of guidelines on allocation priorities.
6. There seems to be too much attention for physical measures, while non-physical measures receive less attention (Java Timur, Brantas).
7. Technical manuals for drafting Pola/Rencana are urgently needed.
8. Coordination between water resources and forestry regarding the definition of DAS would be very helpful.
9. About guidelines for the Analysis Approach:
 - a. The impression is that the Guidelines (Pedoman Teknis) for Water Resources Planning are not intensively used.
 - b. The Regulation 22/PRT/M/2009 needs to be more specific.
 - c. The guidelines developed in the BWRP / JIIWRMP-project seem not to be used, and it is acknowledged that those guidelines:
 - i. Need to be updated (they were written in the 1990's)
 - ii. Need to be expanded (they focus on water resources utilization, and

not on conservation and destructive power)

B.3.4 Planning methods and models

1. There is a lot of confusion regarding the level of detail needed in the Pola / Rencana analysis. The number of DAS per WS in some cases seems extremely high.
Examples:
 - a. Lombok 115 DAS in Pola, 151 DAS in Rencana, while Keppres 12/2012 mentions 197 DAS (of which 56 are utilized and 141 not utilized).
 - b. Sumbawa has 555 DAS.
2. To help the implementation of the Pola / Rencana, the suggestion is made to translate the planning matrix per WS to a matrix per kabupaten/kota.
3. There are big differences between Pola's regarding methods and models:
 - The models to calculate irrigation water requirements.
 - The projection of future irrigation water demand, agricultural yields, etc.
 - The methods to determine domestic, municipal and industrial water demand, for the current situation and for the future.
 - The simulation models used to analyse the water distribution / allocation.
 - etc.....
2. All in all, there is a need for a uniform set of methods and models to be used in drafting Pola and Rencana. The guidelines should devote attention to this, but for specific situations, there should be flexibility to apply different methods and models.

B.3.5 Basic information

1. The availability of quality of basic is generally very poor. This refers to hydrological data (rainfall, evaporation, river flow data), agricultural data (agricultural area, irrigated area, yields, etc.), environmental data (ecotope, erosion and sedimentation, etc.), etc.
 - a. There are multiple data sources, and they generally do not offer the same data (for example agricultural data from BPS, Pertanian and PU).
 - b. There are multiple sources for a single type of data (for example rainfall data from BMKG, PU, Pertanian, Kehutanan, etc.).
 - c. Suggestions for improvements:
 - Appoint an agency (PusAir?) to serve as a clearing house for hydrological data (storage, processing, quality control, and dissemination via a website).
 - Suggestions for improvement of environmental data: quantify the relation between pollution loads and field measurements of water quality (now only water quality measurements and no information on pollution loads).
3. There is a difference in the definition of critical land on various islands. For example: on Java land is critical if the forest is removed; on Sumatra land is critical if 30% of the trees are removed.

B.3.6 The relation of Pola / Rencana with plans / programs for other sectors and relation with national objectives and programs

1. The link between Pola / Rencana and plans / programs for other sectors and national objectives and programs sectors seems very weak. Examples are:
 - a. Agriculture (targets for rice production / food security)
 - b. Spatial Planning
 - c. Disaster Management
 - d. Forestry (watershed degradation)
 - e. Environment (CO2 emission reduction, Millennium Development Goals regarding the supply of drinking water, watershed degradation, water quality)
 - f. Energy generation (targets for hydropower generation?)
2. It would be very helpful if there would be a top-down approach from the National Level >> Islands >> Wilayah Sungai to specify objectives and targets for each Wilayah Sungai.

B.3.7 The capacity for planning

1. All participants to the workshop support the suggestion that there should be intensive training to improve the capacity for planning and for the planning process. This refers to:
 - Government agencies
 - Balai's
 - Provinces
 - DG WRD
 - DG Spatial Planning
 - Specialized agencies: Pusair, BMKG, Pertanian....
 -
 - Consultants
 - TKPSDA
2. It is noted that particular attention is required to retain well-qualified staff. After a promotion, well-trained and experienced staff is no longer available for the planning activities.
3. Special training activities are required for the typical roles in the co-operation Balai-Consultants.

B.4 Priority ranking of issues according to various discussion groups

Group 1, most important issues

1. Water resources data availability and quality are low
2. Understanding Pola and Rencana by the Stakeholder is still low
3. PKM-process (as prescribed in the Guidelines for the Pola) is not an optimal way to convey all the aspirations of the community.
4. Guidelines (Permen and ToR / KAK) about developing a Rencana are indispensable
5. The maximum carrying capacity of a WS is not defined.

Group 2, most important issues

1. The guidelines for drafting Pola and Rencana have not been sufficiently disseminated to all the sectors involved.
2. There is a need for capacity building for PU-staff and consultants in water resources management.
3. The quantity and quality of data is low.
4. Private involvement in technical and financial opportunities is still low.
5. The Pola's that have been developed so far leave room for improvement.

Group 3, important issues (not sufficient time to determine the five most important issues)

1. The awareness by government agencies / sectors of Pola and Rencana is still low.
2. The drafting of Rencana is not based on the guidelines.
3. Pola and Rencana do not have a standard format.
4. It is proposed to appoint the Provincial or Kabupaten Secretary (Sekda) as TKPSDA chairman.
5. There should be a definition of DAS that is agreed upon by all parties in order to avoid multiple interpretations.
6. Should the planning for water resources management be based on DAS or WS ?
7. Availability of data and the accuracy of the data,
8. Groundwater Basins (CAT) needs to be reviewed and need to be considered for the existence and development of natural resource infrastructure.
9. Need clarity regarding controlling destructive force of water for the coastline
10. Need regulations and licensing arrangements for hydro-electric developments (PLTA) and reservoirs (Public Private Partnerships)

Group 4, most important technical:

1. Specifications (Juknis) needed as attachment to PERMEN 22/2009
 - a. Water availability: 80% reliability for irrigation water supply; 90% for DMI
 - b. Water demand:
 - i. Domestic: standard Cipta Karya:
 - ii. population/urban status * demand (l/cap/day),
 - iii. M&I is 10 – 30% of D, or certain big industries
 - iv. irrigation according to KP
 - c. Population according to Sensus BPS 1990-2000-2010
2. Water Balance not for each DAS: number of DAS to be determined according to:
 - a. model: nodes and demand centres (water district)
 - b. significant water needs / water availability (> 10% of total)
3. Water Quality: four classes: how to be determined?
4. Conservation: difference in erodability assessment between BPDAS and USLE

Group 4, most important non-technical issues

1. How to determine what should be strategy for Pola, and what can be addressed in Rencana:
 - a. Based on external targets: MDG, food, energy
 - b. Impact significant (% of population, socio-economic impact)
 - c. Urgency: impact on other issues (conservation is important for all issues)

2. How to determine short term, mid-term, long-term?
 - a. Short term: Urgent, quick yielding,
 - b. Mid Term / Long Term: depending on urgency and technical option + possibility of PPP
3. Data management and access is very important

Group 5, most important issues (not sufficient time to determine the five priority issues)

1. The definition of a watershed (DAS) should be discussed and unified between the Ministries of Forestry and PU.
2. There is a need to strengthen the legal position of Pola and Rencana so it is not easy to deviate from.
3. Guidelines needed for making ToR (KAK) and budget estimates (RAB) for Pola and Rencana
4. The depth and substance of the Pola and Rencana should be determined.
5. The guidelines for Pola and Rencana need to be reviewed (review Permen 22 / 2009)
6. The criteria used in the Pola need to be improved.
7. Dissemination of Pola and Rencana to related parties, including the House of Representatives (DPR) at the national and regional level, and NGO's (LSM) (members of the TKPSDA)
8. Relation between Pola and Spatial Plan (RTRW) (the Pola should be used in drafting RTRW)
9. There is a need increasing the level of responsibility that the TKPSDA has for Pola and Rencana.
10. The chair of the TKPSDA should be able to manage the TKPSDA so that quality of Pola and Rencana are improved.
11. The head of the Balai needs to have a higher priority and responsibility for drafting Pola and Rencana.
12. The flowchart for Pola and Rencana needs to be re-defined: from the macro-level to the micro-level.
13. Despite the lack or incomplete guidelines, the Pola and Rencana need to be drafted before 2015, but they have to be effective.
14. For drafting the Pola and Rencana, use should be made of documents (guidelines) that were drafted in the framework of earlier projects (like BWRMP in the mid-nineties).

B.5 Summary of workshop findings and recommendations

IWRM as a learning process

- This workshop is a step in the learning process
 - we learned from each other's issues
 - we heard suggestions for improvements
- Based on this, we can suggest improvements / specifications on:
 - formal role of Pola (other Ministries)
 - process (time schedule, steps, ...)

- content and level of detail of Pola and Rencana
- supporting material (Pedoman, tools, data)
- training / capacity building
- etc.

Overview

1. Focus Pola on main strategic issues, incl.
 - move the selection of strategy to end of Pola process
 - include B/C of main infrastructural measures in Pola
2. Adjust the Pedoman on Pola and draft Pedoman on Rencana
 - to reflect above
 - to simplify
3. Provide analytical support for the preparation of Pola and Rencana
4. Provide capacity building and training
5. Relation with plans other sectors and national objectives (from national to islands to basins)

Ad 1) Focus Pola on main strategic issues

- Focus Pola at strategic issues and measures
 - issues that have an impact on an important part of the stakeholders or require a joint effort of the stakeholders to solve
 - 'basin level' decisions
 - other (minor and local) issues (the wish list) to be listed in the Pola but details to be included in Rencana
- Pola process to include selection of preferred overall strategy (now first step in Rencana process)
 - including assessment of this strategy on 3 main IWRM criteria: economic efficiency, social equity and environmental sustainability
 - hence, costs aspects to be included in Pola !

Main philosophy behind Pola

- Pola to focus on decision making on strategic issues at basin level
 - policy principles
 - major utilization (infrastructure) and conservation measures
- Pola to include context (other policy areas) and assumptions on scenario's (external developments)
- Cost estimates of proposed measures to be included (needed for decision making)
- Pola process to include all other issues and possible measures, but
 - just inventory, will be included in annexes, to be worked out in Rencana
- Draft Pola with alternative strategies will be input for decision making
- Final Pola to include decision on preferred strategy
- Main text maximum 50 pages (+ supporting volumes)

Ad 2) Adjust the Pedoman on Pola and draft Pedoman on Rencana

- Update Regulation 22/PRT/M/2009
 - focus on strategic issues
 - simplify, include flexibility (simple basins, simple plans, etc.)

- less data requirements (for simple basins)
- Finalize the draft regulation on the Rencana
 - balanced level of detail (boreholes?)
 - detail at pre-feasibility level (not detailed feasibility, no design, etc.)

Ad 3) Provide analytical support for the preparation of Pola and Rencana

- Update guidelines BWRP/JIIWRMP (water resources utilization only)
- Draft guidelines for the other 4 pillars (conservation, data centre, etc.)
- Consider clearing house for hydrology (PusAir?)
- Consider clearing house for supporting models (RIBASIM, HYMOS, model for water demand, etc)

Ad 4) Provide capacity building and training

- ToT
 - on how to develop Pola and Rencana
 - the value of supporting tools
- Training for young engineers
 - principles of WR planning
 - application of supporting tools
- Training for TKPSDA
 - objective and value of Pola and Rencana
 - principles of WR planning

Ad 5) Relation with plans other sectors and national objectives / programs

- Agriculture (rice production / food security)
- Spatial Planning
- Disaster Management
- Forestry (watershed degradation)
- Environment (CO2 emission reduction, MDG, watershed degradation, water quality)
- Energy generation (hydropower?)
 - Need for a top-down approach National Level >> Islands >> Wilayah Sungai to specify objectives and targets for each Wilayah Sungai.

C Participants Bandung workshop 12-13 November 2013

D Programme Bandung workshop 12-13 November 2013