

Hydrology Project

Technical Assistance

HP training module no ..

Training of Trainers - 2

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1 Module context

This module on training skills is a stand-alone follow-up of the training of trainers course - I. Its focus is on review on past training experienced and detailed planning of future training based on actual staffing volumes. Successful completion of this module assumes the availability of staffing details on the table, as there is no time (and no point) to collect or guess these figures. Other available modules in this category of training skills include:

Module	Code	Objectives
How to develop a training programme	Gen ...	<ul style="list-style-type: none">• Understand the importance of training of training• Develop training programmes• Develop training modules
How to manage training	Gen ...	<ul style="list-style-type: none">• Scheduling the preparation and implementation of a training programme• Understand administrative responsibility and organizational arrangements• Maintain training records
How to communicate as a trainer	Gen ...	<ul style="list-style-type: none">• Deliver effective presentations• Give clear demonstrations and guide exercises• Facilitate group discussions• Select appropriate training methods for given objectives• Become aware of personal strengths and weaknesses in basic communication skills and start a personal improvement plan

2 *Module profile*

Title	:	Training of Trainers – II
Target Group	:	CTI faculty and State trainers
Duration	:	Crash course: 3 days for a group of 15 persons.
Objectives	:	After training, the participants will be able to: <ol style="list-style-type: none">1. Specify and solve recurring difficulties in training2. Calculate the training volumes3. Plan the annual training calendar in full detail
Key concepts	:	<ul style="list-style-type: none">• Training skills• Text analysis• Supply and demand orientation in training
Training methods	:	Mainly exercises and direct feedback, active participation by audience for assessments, small groups.
Training tools	:	OHP, sheets, flip chart, 20 objects, training information documents (see listing on last sheets on day 3)
Handout	:	Copy of handout section, evaluation / assessment forms
Further reading	:	None

3 Session plan

Day 1

0	Preparations:		
	<ul style="list-style-type: none"> • Arrange room: seating in U-shape, name cards, OHP etc • Certificates • Place 20 items in the centre of the class 		<i>A-4 name cards 20 objects</i>
1	Introductions:	45 min.	
	<ul style="list-style-type: none"> • Official address(es) by • Summarise programme • Ask participants to pick one object and introduce themselves, associating with the symbols & training 	10–15 min. 10 min. 20 min.	<i>OHS OHS</i>
2	Exercise: Sharing experiences	120 min.	
	<ul style="list-style-type: none"> • Ask for motivating experiences as trainers • Give a recap of the training cycle . • In groups: ask for training issues as per training cycle • Coach groups to formulate issues in a precise manner • Collect aggregated results 	30 min. 15 min. 60 min. 20 min.	<i>OHS Handout</i>
3	Self assessment training skills:	110 min	
	<ul style="list-style-type: none"> • Distribute assessment sheets for individual testing • Ask to count the no. of ‘Yes’ • Present scores and allow re-look • Ask each participant to forward one personal communication / training personal key issue: open or in problem hat • Discuss one by one 	20 min. 10 min. 90 min	<i>Handout OHS OHS Cards, Hat</i>
4	Text analysis:	55-75 min.	
	<ul style="list-style-type: none"> • Game-1: 100 % Inspection Explain, list scores, allow recounting of F’s • Game-2: The Hum Panch Family Drama (home work) • Explain, give right sequence afterwards/next day • • Announce benefits of text analysis, provide tips 	 20 min	<i>Handout List on flip chart Handout OHS</i>
5	Wrap up:	10 min.	
	<ul style="list-style-type: none"> • Announce to bring maps, figures and site lists per domain for next days exercise 		<i>OHS</i>
	Evening:		
	<ul style="list-style-type: none"> • Compile/ organise experiences & solutions 		

Day 2

09.00	Icebreaker Buzz game	20 min.	
1	Solution Hum Panch: distribute and relate to logic & sequencing as basic training skill in procedures and planning	10 min	<i>Handout</i>
	Refer / explain principles of skills training	10 min	<i>OHS</i>
2	Introduction to staffing calculations	10 min.	<i>OHS</i>
3	Explain example staffing plan = training volume <ul style="list-style-type: none">• Headings and staff differentiation (x-axis)• Organizational units: sites, divisions etc (y-axis)• Staffing numbers: existing / new / work organisation	30 min.	<i>OHS</i> <i>Handout map</i> <i>Handout tables</i>
4	STEP1 Exercise: tabulate and calculate training volume <ul style="list-style-type: none">• Distribute blank tables (SW, GW, WQ)• Verify available staffing and site info• Split in groups per domain SW+WQ, GW+WQ• Intensive coaching to get started and proceed <p>Later:</p> <ul style="list-style-type: none">• Put WQ separate• Ask to sum up and present totals	1850 min.	<i>Handout</i>
*****	Private parallel session with TC & SMC: <ul style="list-style-type: none">• Inform on ongoing exercise• Explain need for similar exercise for other HIS functions		HIS job list & target figures

Day 3

09.00	1 Lets be logical: Game – The Titanic experience	30 min	
	<ul style="list-style-type: none">• Individual attempt• Group findings• Experts' results• Calculate results, find the winner(s)• Hand-out expert result		<i>OHS Handout</i>
	2 Introduction to training planning	30 min	<i>OHS</i>
	3 Explain example plan and calendar	15 min	<i>OHS & handouts</i>
	4 STEP 2 Exercise: Make training calendar	150 min	<i>OHS Handout</i>
	<ul style="list-style-type: none">• Distribute blank tables (SW, GW, WQ)• Split into five groups per domain (SW, GW, WQ)• Action & coaching		
	***** Simultaneous exercise with STC		
	<ul style="list-style-type: none">• Discuss training variety in HP and present status• Review of draft plans from trainers• Last check of calendar		<i>Latest update of all HP training</i>
14 -15.00	Buffer time to complete training plan		
15.00	5 STEP3 Implementation	15 min	
	<ul style="list-style-type: none">• Present general implementation guidelines• Distribute retyped overviews of training issues• Read the issues and possible solutions		<i>OHP Re-typed issues on sample agenda</i>
	6 Training Information	30 min	<i>OHS</i>
	<ul style="list-style-type: none">• Explain in & outgoing training information• Distribute related documents. Trainer sheets to be completed on the spot		Handouts: 1. Overview all courses 2. Course prototypes 3. Training institutes 4. Catalogues: PG & study sites 5. Training history 6. SMC list 7. TC list 8. Trainee profile master 9. Trainer profiles
	7 Evaluation	15 min	<i>Forms in handout</i>
	8 Thank you' s and certificates	30 min	

Close at 16.30

Follow up: within one/ two weeks

- More complete fact-finding for staffing & calendar ?
 - Type out results: staffing volume, calendar
 - Mail results, issues to participants / TC / SMC / authorities
-

4 Overhead sheets

Training of Trainers - II

***Good morning
and
welcome to you all***

Programme

Day 1 - *Review our training work*

Day 2 - *Calculate training volumes*

Day 3 - *Prepare training plan & calendar*

- *Discuss pending issues*

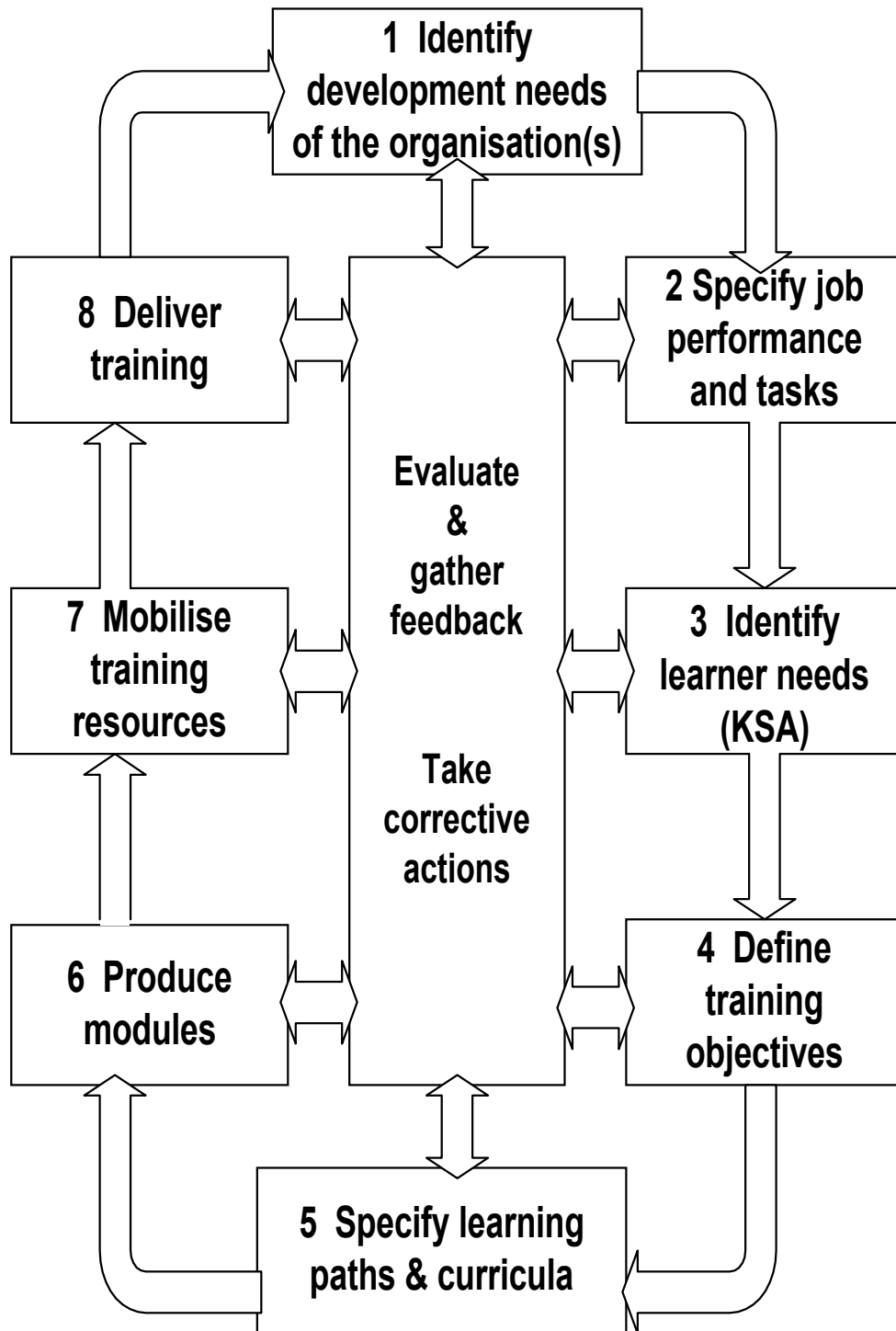
How are you (really) doing ?

- Changes in your posting as trainer ?
- Did you deliver training ?
- Explain your matching symbol

Your happy moments

What keeps you going in training ?

Where did you get stuck in the training development cycle ?



Review your training experiences

- In groups (60 minutes)
 - consider each training development step
 - discuss each issue
 - no censorship
 - formulate clearly
 - re-write on blank format

- Follow-up on day 3

Review your communication skills

1 Mark your strengths

- in presentations, lectures
- in demonstrations & coaching exercises
- in guiding discussions

2 Note your biggest doubts

(10 minutes)

Review your communication skills

16 to 19 points

You seem to be honest and critical about your performance. That is the best start for improvement. Make personal improvement plan. Practice, practice.

20 to 25 points

You know exactly how to spot your weaker points. Share your remaining doubts with your colleagues and us.

26 to 28 points

You seem to be a perfect communicator. Are you sure your trainees feel the same way about you communication skills? Avoid over-confidence.

Review your scores

Please share your biggest doubts

1. Note one issue: crisp & clear
2. No names
3. Discover the wisdom in your team

100 % Inspection

- Read the text
- Count the small **f** 's and capital **F** 's
- Do not read two times: 200 % inspection
- Complete in ten minutes

The Hum Panch family drama

- Note the right sequence in the margin
- Right sequence tomorrow

Right sequence of events in the Hum Panch family drama

Do you still remember the right sequence in skills training ?

Prepare

- Get the real thing and make sure it works
- Master all details yourself, over and over again
- Write out step-by-step actions / procedure
- Golden rule: tell, demonstrate and practice for all under your guidance.

1 Tell

- Define final result
- Break down the action in clear, successive steps
- Always avoid background stories, related skills and special conditions

2 Demonstrate

- Make sure everybody sees what you are doing
- Repeat exactly the steps of action

3 Guide exercises for all

- Allow mistakes, don't correct too quickly
- Give lots of positive support
- Stick to original sequence of steps, no deviations
- Avoid questions and other distractions
- Split in coached groups to save time

Tomorrow: training planning in your State

1. Bring maps with observation sites, wells, labs.
2. Bring staffing information: observers, supervisors, lab staff etc.
3. TC only: bring staffing information for all other HIS functions.

How to plan training: overview

- 1. Define job variety and workload in data collection at sites and labs**
- 2. Learn from example staffing plans**
- 3. Tabulate and calculate your staffing and training volumes: GW, SW, MET, WQ**



- 4. Define activities for training planning**
- 5. Prepare your training plan**
- 6. Solve implementation issues**

Step 1: tabulate and calculate staffing volumes (=training targets)

- 1 List data collection jobs > X-axis
- 2 List sites, regions, divisions > Y-axis
- 3 Cross sections: note staffing in numbers
 - Existing + sanctioned this year (E)
 - Required in addition (R)
- 4 Total existing and future staff for each job and area
- 5 Subtract persons already trained. Do you keep such trainee records? Is re-training needed?

Result:

target numbers of staff for immediate and future training, per job and area / network

Example staffing plan

Tabulate and calculate staffing and training volumes

Prepare your training plan

- Supply-based planning
- Demand-based planning
- Routine deliveries or training development ?

Supply-based training planning: features & risks

- Contents not relevant for the job / needs
- Unfamiliar trainers
- Delivery time not convenient
- Duration too long
- Unit cost too high
- All nominations accepted
- Going by the numbers

Are you supply-oriented ?

Demand-based training planning: features & advantages

- 1 Responsive to organisational changes and needs
> HIDAP & TNA
- 2 Based on job descriptions and job training needs
> job & personal TNA
- 3 Targets match with available / sanctioned staff
- 4 Delivery at the doorstep (in-house)
> offices, sites, labs etc.
- 5 Duration manageable for the participants & trainers
- 6 Delivery timing matches with physical progress, staffing, season
- 7 Long term satisfaction WB & PCS: going by names, not the numbers
- 8 Professional credibility of training teams
> trainers and coordinators

Are you demand-oriented ?

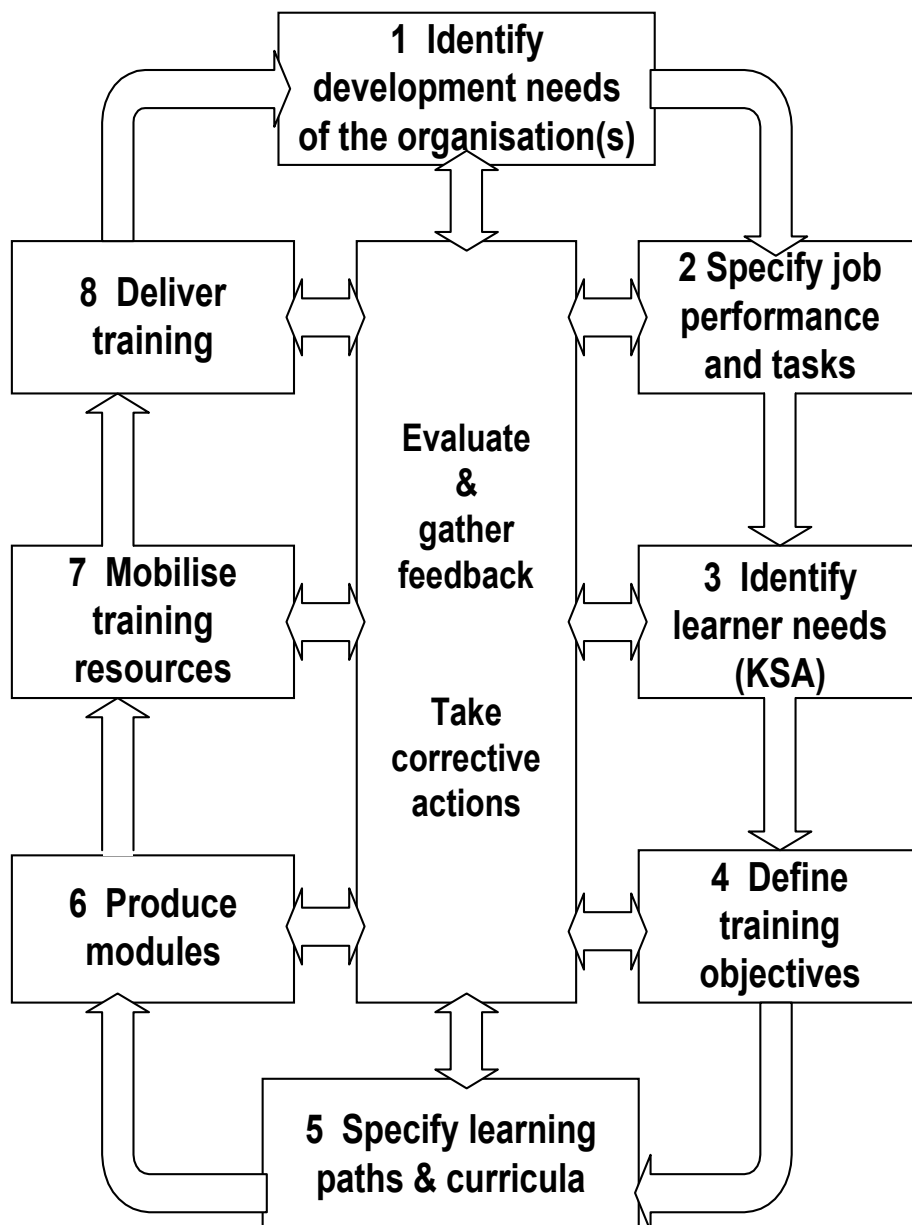
Unavoidable deviations from SAR

- 1. Renamed courses: content & job**
- 2. Shorter courses**
- 3. New courses**
- 4. More than one delivery for same staff**
- 5. Lower or higher targets**

AND:

- 6. Unit cost will be lower or higher**
- 7. You need 10 % contingency in your annual training budget**

Routine deliveries or training development ?



Discover the logic in training planning: *The Titanic experience*

- Rank your survival kit (1 to 15) > 10 min.
- Do others have better ideas? > 15 min.
- Decide on your final list > 5 min.
- Count good and ± 1 scores in your final list
- Find out if you are going to survive

The Titanic Experience: professional opinions

Step 2: Prepare your training plan

1 Define courses

- Title which reflects contents and target group
- Maximum of 1-2 weeks of uninterrupted training
- Split long courses in linked shorter courses (learning path)
- Some staff follows variety of courses (learning path)

2 Cluster participants

- Local deliveries for smaller geographical areas, basins
- Centralize small target groups
- 10 Participants per course

3 Sequence of deliveries

- Bottom-up or top-down?
- Which regions come first?

4 Set dates

- Not too early or late: your equipment
- Not too early or late: operational sites and offices
- Avoid hot season, monsoon, holidays and holy days
- Simultaneous deliveries ?

5 There is more to plan than just deliveries:

- Training development and preparations
- Non-training activities in your work (% ??)
- Sanctioning of funds
- Timely announcements and nominations

Example training plan

Step 2: Prepare your training plan

Step 3: secure implementation

- Check resources (vertical)
- Confirm details with beneficiaries
- Get commitment, approval and package sanctioning from competent authorities
- Book training sites, venues, hosts and additional trainers
- Early announcements and nominations:
 - Go by the names of staff and locations, not by the numbers
 - Give preference to operational sites
 - Give preference to newly posted staff
- What about your other implementation issues ?

Solve your doubts in regular training team meetings

- 1 Include present list of issues on agenda
- 2 Check progress in training plan
- 3 Note new issues and constraints.
- 4 Find corrective actions together. Be precise on who is doing what. Use format.
- 5 Keep your training records up to date: trainees, trainers, institutes, course deliveries, evaluation results, module revisions. Inform others: local & consultants.
- 6 Keep training development alive:
 - emerging training needs
 - eva's & redesigned courses / sessions / materials
 - share new materials with other trainers.

Training team action list

State: Place: Date:

No.	Issue	Agreed action	Taken by	Ready by

Training information

Incoming documents (from Consultants)

- 1 Development status of all HIS courses
- 2 Prototype courses
- 3 Standard HP training modules
- 4 Directories: active institutes and trainers
- 5 Catalogues: postgraduate, study tours
- 6 Training history: monthly updates
- 7 Training coverage reports (MIS)

And: SMC & TC lists

Local administration and outgoing data (TC & you)

- 8 Trainees: new & updates
- 9 Trainers / faculty: new and updates
- 10 Training institutes: providers, partners, hosts
- 11 Calendars & plans
- 12 Syllabi & course prototypes
- 13 Evaluations & corrective actions

Handouts

Training of Trainers - II Kerala, 13 – 15 January, 1999

Programme details

Day 1

1	Introductions	45 min.
2	Sharing experiences	150 min.
3	Self-assessment	120 min.
4	Text analysis	75 min.
5	Wrap up	10 min.

Day 2

1	Icebreaker	20 min.
2	Introduction to staffing planning	15 min.
3	Example staffing plan	30 min.
4	STEP 1 Exercise: tabulate/calculate staffing plan	300 min.
*****	Parallel session with TC & SMC: absorb the exercise and complete for other HIS jobs.	

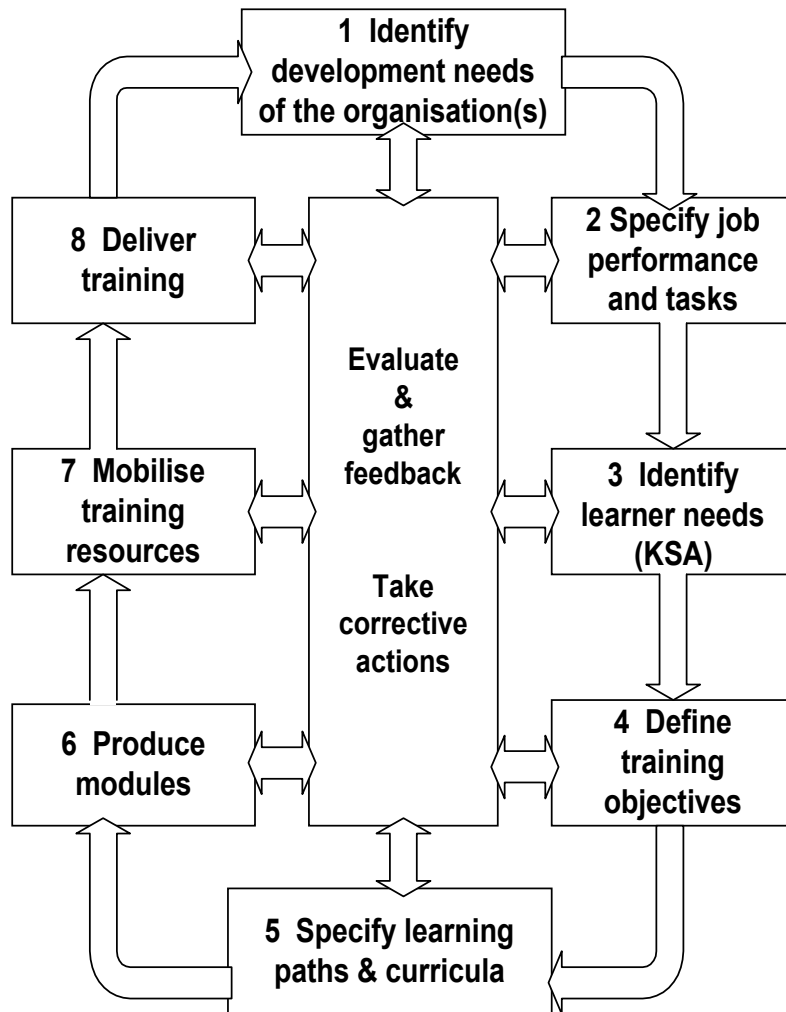
Day 3

1	Planning logic: <i>the Titanic experience</i>	40 min.
2	Introduction to the training calendar	20 min.
3	Example training calendar	15 min.
4	STEP 2 Exercise: prepare Region's training calendar	150 min.
*****	Simultaneous exercise with TC:	
	• Plan other HIS courses as per HIS staffing requirements	
	• Review of draft staffing plan	
	• Last check of calendar	
5	STEP3 Implementation	90 min.
6	Training information exchange	30 min.
7	Evaluation:	30 min.
8	Closure at 17.00 hours	

Introductions

- How are you (really) doing ?
- Any changes in your job / designation ?
- Expectations on this ToT - 2
- Explain your matching symbol

Review your doubts in the training development cycle



List training issues (see format on next page:

- as per training development steps
- discuss and analyze each issue
- phrase clearly
- suggest possible solutions
- re-write on blank format

Assess your personal training experiences page 1/2

S.No.	Development steps	Issues	Solutions
1.	<p>Fact-finding and analysis: For example: Are you familiar with HIDAP results? Do you have the job descriptions of your target groups? Do you undertake personal training needs analysis? Etc</p>		
2.	<p>Training design: For example: are course & session objectives adequate? Are curricula and learning paths made? Are K,S & A sessions in balance with job training needs? Etc</p>		
3.	<p>Training resources: For example: Do you have partners in training delivery. What about facilities for modules and handouts. And equipment and sites for demonstrations and exercises. Consider training venues, logistics, budget, payments, time. Etc.</p>		

Assess your personal training experiences page 2/2

S.No.	Development steps	Issues	Solutions
4.	Conduct / deliver training What is especially troublesome when you deliver your courses?		
5.	Evaluate training courses & take corrective actions. What issues stand out from evaluation results of earlier courses: contents, trainers, logistics, materials. Are evaluation done at all. Are results discussed with you? Etc.		
6.	General training management & coordination in the State		

Review your communication skills

- 1 Tick yes or no, in the list below.
- 2 Describe your biggest doubts in the three boxes, down the page

<i>In presentations, do you:</i>		<i>Yes</i>	<i>No</i>
	Find out more about the audience's interests and job realities before you face them ?		
	Find out how your session(s) fit in the syllabus context ?		
	Rephrase handouts for your audience and prepare simplified pictures ?		
	Rehearse your show with a critical test audience ?		
	Start your presentation with objective, summary, context, interesting statements ?		
	Avoid reading your text ?		
	Limit details and the number of topics in a presentation ?		
	Stick to the sequence you planned for the session ?		
	Move from general to specific, or the other way round ?		
	Use good examples?		
	Mark transitions from one topic to another with summaries, statements, silence ?		
	Take care of a memorable conclusion and summary at the end ?		
	Feel confident to handle any sort of question from the audience ?		
<i>In demonstrations and skills training, do you:</i>			
	Always get the real equipment and make sure it works ?		
	Breakdown and spell-out a skill in the smallest successive steps ?		
	Fully master all steps yourself before you start demonstrating ?		
	Always apply the golden rule of <i>tell-demonstrate-practice for all</i> ?		
	Avoid discussions, questions, and other types of distractions ?		
	Allow everybody to practice under your guidance / coaching ?		
	Remain patient, supportive, consistent, and allow mistakes when coaching ?		
	Split in smaller groups, with duplicate instruments and coaches, to save time ?		
<i>In discussions, do you:</i>			
	Ask questions, questions and more questions, rather than presenting your point ?		
	Involve everybody, rather than leaning on a few enthusiastic individuals ?		
	Maintain a clear overview of progress made through summaries, listings, keywords ?		
	Manage to focus on the topic in one large group and in several smaller groups?		
<i>... and generally:</i>			
	Do you regularly use the ToT-1 personal checklist to improve your style ?		
	Are you always aware of the audience response and sometimes switch to another training method, insert a break, or break-the-ice to restore participation ?		
	Are you always keen to obtain and read the audience evaluation of your strong and weaker points, and decide on corrections ?		
		Totals	
	What is still troubling you the most in presentations ?		
	What is still troubling you the most in skills training ?		
	What is still troubling you the most in discussions ?		

Exercise: 100 % Inspection

- *Go through the text and count 'F's, both small and capital letters*
- ***Do not*** *go through the text a second time as that would be 200 % inspection*
- *You have **ten (10) minutes** to complete the exercise*

The necessity of training farm hands for first class farms in the fatherly handling of farm live stock is foremost in the minds of farm owners. Since the forefathers of the farm owners trained the farm hands for first class farms in the fatherly handling of farm live stock, the farm owners feel they should carry on with the family tradition of training farm hands of first class farms in the fatherly handling of farm live stock because they believe it is the basis of good fundamental farm management.

<i>Number of 'f'+ 'F's =</i>

Exercise: The Hum Panch Family Drama

This is a story of a family struggling to get the TV working so that they can watch the India – Pakistan ODI cricket match on time. But, the story got all mixed up... Help us arrange the story in its right sequence ensuring that it makes sense.

- 1 The uncle followed his sister- in- law and added his own version, “In fact, it is the Supreme brand which is itself bad. I know so many people whose Supreme brand T V has failed so often. Supreme people don't know how to make TV's.”
- 2 Finally, it was the turn of the father. He felt that the tuning knob might have been turned wrongly. So, he fiddled with the tuning knob, but no picture.
- 3 The mother cursed the T V dealer saying, “We can get the T V repaired again, but I have been telling you all that our dealer is useless, he dumps all lousy products on us. We should not have bought the T V from him.”
- 4 The father said, “Our T V picture and sound do not come, although the power supply is alright and the transmission also seems to be alright. The neighbour's have the picture and the sound in their T V.
- 5 He put the insulation with thicker plastic where the wire rubbed on the sharp edge of the parapet wall.
- 6 On Saturday evening the Hum Panch family found that the T V and the cooler are not working. The mother suggested going to her sister's house. Father discovered that the battery is down and the car won't start. The family is really board.
- 7 Father said, “This is the first time in the past year when the battery is down and I will get it fixed on Monday.” The uncle who also lives with them said, “These days our T V breaks down almost every week.” Sister said, “Our cooler has broken down second time this season.” The India – Pakistan ODI cricket match will be televised any time now. The family agreed to fix the T V first since none them wanted to miss the match.
- 8 The elder brother said, “Blaming does not help now, let us do something. Why not check the plug, the main switch and the T V speakers. Perhaps it has not been checked properly.” He checked the plug etc. and found everything in order.
- 9 When they switched on the T V for the ODI cricket match, all of them laughed on how the entire family was cursing the T V, when nothing was wrong with it.
- 10 He dropped in to say hallo and asked Mr. Patel does he have a problem with his T V. Mr. Patel said, “But of course, how did you know?” Then he told Mr. Patel how the dangling wire gets cut.

(Continued on next page)

- 11 The little sister was even smarter than her elder brother. She said, “Perhaps, the channel is not correctly selected.” She checked all the 36 channels, but no luck.
- 12 He discarded the portion of the wire and reconnected the new end to the antenna.
- 13 The boy remarked, “Perhaps there is something wrong with the T V tower and probably it does not broadcast anything.” He ran to the neighbour’s house and found that the reception was crystal clear.
- 14 “There is definitely something wrong with the antenna,” said the father. He ran up to the terrace to inspect the wire connection. He found the culprit just at the edge of the terrace. The sharp edge had cut the wire leaving it hanging by the insulation.
- 15 The picture came bright and clear. The little boy said, “There is nothing wrong with either the dealer or our Supreme T V. Anyway, thank God.” The whole family celebrated for getting the T V fixed just in time for the cricket match.
- 16 The little boy admonished his sister, “Don’t fiddle with the channel.”
- 17 Then he ran to the terrace to check the antenna. He checked the wire, it ran from the top of the pole right into the house – no problem.
- 18 He thought for a while and then plugged into the indoor antenna. The picture came but was hazy.
- 19 On Sunday when walked around the neighbourhood, he saw the antenna wire rubbing on the parapet edge of Mr. Patel’s house.
- 20 The next morning the father went to the terrace and fixed the wire, tying it to the drain pipe, preventing it from dangling.
- 21 He along with Mr. Patel made plans to fix the latter's antenna wire.

Do you still remember the right sequence in skills training ?

Prepare

- Get the real thing and make sure it works
- Master all details yourself, over and over again
- Write out step-by-step actions / procedure
- Golden rule: tell, demonstrate, and practice for all under your guidance.

1 *Tell*

- Define final result
- Break down the action in clear, successive steps
- Always avoid background stories, related skills and special conditions

2 *Demonstrate*

- Make sure everybody sees what you are doing
- Repeat exactly the steps of action

3 *Guide exercises for all*

- Allow mistakes, don't correct too quickly
- Give lots of positive support
- Stick to original sequence of steps, no deviations
- Avoid questions and other distractions
- Split in coached groups to save time

Tabulate and calculate staffing volumes

1. List HIS jobs: helpers, observers, supervisors, junior eng.'s, special equipment etc. (X-axis)
 2. List tasks, sites, regions, divisions. (Y-axis)
 3. Calculate staffing requirements per job and area:
 - Existing + sanctioned this year > E
 - Required (addition) > R
 4. Total the number of existing (or selected) staff in each job per region convenient for training
 5. Subtract persons already trained. Do you keep such trainee records? Is re-training needed?
- **Result:** *number of people for immediate training, per job and region.*

Example staffing plan for SW field staff (Orissa) Page 1/6

Division	Sub-Division	Code No.	Location	Type of Site	Task	Staff categories								Remarks
						S3		S2				S1		
						JE		Observer		G- reader		Khalasi		
						E	R	E	R	E	R	E	R	
North	Bolangir	M1	Patora on Jonk	Dam	GD S	1				2		1		Existing/ upgraded
		M9	Pujaripalli on Ong	Cable	GD S						+1	1	+1	Existing/ upgraded
		M14	Baragaon on Lanth	Bridge	GD					3		2		Existing/ upgraded
		M22	Chandanvadi on Suktel	Bridge	GD S W					3		3		Existing/ upgraded
		M15	Takla on Indra	Bridge	GD S W	1				1		1	+1	Existing/ upgraded
		M16	Gorla on Udanti	Bridge	GD S					1		2		Existing/ upgraded
		M17	Tulaghat on Roul	Bridge	GD S						+1		+2	Existing/ upgraded
		M17A	Burat (Rampur) on Uttei	Bridge	GD						+1	1	+1	New
		M18	Chatikuda	Bridge	GD S					1		1	+1	New
		M19	Ichhapur on Sunder	Dam	G					1			+1	Existing/ upgraded
		MET4	Padmapur	FCS	M								?????????	

Division	Sub-Division	Code No.	Location	Type of Site	Task	Staff categories								Remarks
						S3		S2				S1		
						JE		Observer		G- reader		Khalasi		
						E	R	E	R	E	R	E	R	
North (Contd.)	Deogarh	M3	Rampur on Bheden	Boat	GD	1					+1		+3	New
		M4	Tumulbandha on Sapei	Bridge	GD						+1		+2	New
		M6	Kochinda on Karla	Bridge	GD			+1					2	New
		M24	Bhagrapalli on Jeera	Bridge	GD S					+1			+2	Existing/ upgraded
		M27	Charmal on Surubalijore	Bridge	GD S					+1			+2	Existing/ upgraded
		M28	Kadligada on Kerandijore	Cable	GD			+1					+2	New
		M29	Sagjuri on Hariharjore	Dam	G					+1			+1	New
		M30	Maneswar on Malatijore	?????	GD					+1			+2	New
		MET-3	Deogarh	FCS	M									?????????
	Phulbani	M20	Surubali on Khadgo	Cable	GD S	1					+1		+2	New
		M25	Saguda on Bagh	Barage	G				1				+1	Existing/ upgraded
		M26	Basipada on Salki	Dam	G					+1			+2	Existing/ upgraded
		M32	Takara on Burtang	Cable	GD S				1		1	+1		Existing/ upgraded
		M33	Dam on Kuanria	Dam	G					+1			+1	Existing/ upgraded
		M34	Badapandusur on Kusumi	Bridge	GD					+1			+2	New
M35		Ganth on Mahanadi	???	G					+1			+1	New	
MET8		Rairakhol	FCS	M									???????????	
Sub total – North						4			+2	14	+14	13	+33	

Division	Sub-Division	Code No.	Location	Type of Site	Task	Staff categories						Remarks			
						S3		S2			S1				
						JE		Observer		G- reader			Khalasi		
						E	R	E	R	E	R		E	R	
Central	Baripada	S1	Bahalada on kharkhai	Dam	GD S W	1					+1		+2	Existing/ upgraded	
		S2	Pandora on Subernarekha	Boat	GD						+1		+2	New	
		S3	Rajghat on Subernarekha	Bridge	GD						+1		+2	Existing/ upgraded	
		BU2	Baripada on Budhabalanga	Bridge	GD S W						+1		+2	Existing/ upgraded	
		BU3	Manitri on Gangahara	Bridge	GD						+1		+2	New	
		BA2	Swampatna on Baitarani	Bridge	GD S	1					+1		+2	Existing/ upgraded	
		BA4	Tuntuna on Ardei	Bridge	GD						+1		+2	New	
		BA5	Hatibari on Deo	Bridge	GD S						+1		+2	New	
		BA6	Belbahali on Kusei	Bridge	GD						+1		+2	New	
		MET6	Baripada	FCS	M									?????????	
		Cuttack	M31	Naraj on Mahanadi	Bridge	GD S W	1		2		2		6		Existing/ upgraded
			M36	Tarapur on Mahanadi	Bridge	GD			4		1		13		Existing/ upgraded
			M38	Cuttack on Kathajodi	Bridge	GD			8		2		4		Existing/ upgraded
			M37	Balianta on Kuakhai	Bridge	GD	1				1		2		Existing/ upgraded
	M39		Nimapada on Kusabhadra	Bridge	GD						+1		+2	Existing/ upgraded	

Division	Sub-Division	Code No.	Location	Type of Site	Task	Staff categories						Remarks		
						S3		S2			S1			
						JE		Observer		G- reader			Khalasi	
						E	R	E	R	E	R		E	R
Central (Contd.)	Cuttack	M40	Balichandrapur on Birupa	Bridge	GD	1		1		2		3		Existing/ upgraded
		BR16	Indupur on Brahmani	Boat	GD S W			1		2		11		Existing/ upgraded
		BA7	NH- 5 Bridge on Baitarani	Bridge	GD S W	1		2		5				Existing/ upgraded
		BR15	Khanditara on Brahmani	Bridge	GD			1		6				Existing/ upgraded
		MET2	Bhadrak	FCS	M									????????
	Samal	BR5	Rengali Dam on Bramani	Dam	G	1					+1		+1	Existing/ upgraded
		BR10	Pallahara on Mankada	Bridge	GD						+1		+2	New
		BR11	Sarapali on Tikara	Bridge	GD						+1		+2	New
		BR12	Birlamunda on Samakoi	Cable	GD						+1		+2	New
		BR7	Samal barrage on Brahmani	Weir	GD	1				1		3		Existing/ upgraded
		BR13	NH42 Bridge on Ningra	Bridge	GD						+1		+2	New
		BR14	Tantichira on Budhpore dam	Dam	G						+1		+1	Existing/ upgraded
		MET1	Daspalla	FCS	M									??????????????
	Sub total – Central					8		16		14	+16	53	+30	

Division	Sub-Division	Code No.	Location	Type of Site	Task	Staff categories								Remarks
						S3		S2				S1		
						JE		Observer		G- reader		Khalasi		
						E	R	E	R	E	R	E	R	
South	Berhampur	R3	Nandigada on Rushikulya	Boat	GD S W	1			+1				+3	New
		R4	Nahada on Badanadi	Boat	GD S				+1				+3	Existing/ upgraded
		R5	Pipalpankha on Adangi river	Bridge	GD		1		1		2			New
		MET5	Aska	FCS	M									?????????
		R6	Maulabhanja on Ghodahada	Bridge	GD	1				+1			+2	Existing/ upgraded
		R7	Induguda on Daha	Dam	G					+1			+1	Existing/ upgraded
		Raigada	N4	J K Pur on Nagavali	Bridge	GD S W	1				+1		+2	New
			N3	Kalyasingpur on Badanadi (Nagavali)	Bridge	GD S			1				+2	Existing/ upgraded
			V3	Kutragarh on Vasandhara	Bridge	GD S W			1				+2	Existing/ upgraded
			V4	Gumuda on Vasandhara	Bridge	GD	1		1				+2	New
			V5	Mohana on Harabhangi	Bridge	GD			1				+2	New
			V6	Parlakhemandi on Mahendratanya		GD S W			1				+2	New
		MET7	Gunupur	FCS	M									?????????

Division	Sub-Division	Code No.	Location	Type of Site	Task	Staff categories								Remarks
						S3		S2				S1		
						JE		Observer		G- reader		Khalasi		
						E	R	E	R	E	R	E	R	
South (Contd.)	Jeypore	KI 3	Sirivada on Kolab	Cable	GD	1			+1				+2	Existing/ upgraded
		KI 7	Bikrampur on Turi	Cable	GD			1					+2	Existing/ upgraded
		KI 1	Kolabnagar on Kolab	Dam	G						+1		+1	Existing/ upgraded
		KI 9	Kurmuli on Indravati	Dam	G						+1		+1	Existing/ upgraded
		KI 4	Pogam on Gania nalla	Cable	GD				1				+2	Existing/ upgraded
		KI 8	Baskal Dam	Dam	G						+1		+1	Existing/ upgraded
		KI 6	Nuagada on Telengiri	Bridge	GD SW	1				1		1	+1	Existing/ upgraded
		KI 11	Gadgi on Saptadhara	Cable	GD					1			+2	Existing/ upgraded
		KI 5	Saradaput on Sabri	Bridge	GD					1			+2	Existing/ upgraded
		MET9	Jeypore	FCS	M									?????????
Sub total – South						6		2	+3	10	+6	3	+35	

Summary

Division		Staff categories								Remarks
		S3		S2				S1		
		JE/ AE		Observer		G- reader		Khalasi		
		E	R	E	R	E	R	E	R	
‘ North + Central + South’ Totals		18	0	18	+5	38	+36	69	+98	Does not include staff to man the FCS

GW Data Collection Staff Maharashtra

Region	District	Code	No.of Wells/Districts			Task	Staff Categories						Remarks
			GSDA	CGWB	Total		G3		G2		G1		
							Senior Geologist	Assistant Geologist	Junior Geologist	E	R	E	
Konkan	Thane		19	NIL	19	DWLR & WQ	1		4		4	+1	
	Raigad		14	NIL	14		1		3	+1	4	+1	
	Ratnagiri		25	NIL	25		1		3	+1	4	+1	
	Sindhudurg		25	NIL	25		1		3	+1	4	+1	
Nashik	Nashik		45	8	53		1		4	-	4	+1	
	Dhule		23	NA	23		1		3	+1	4	+1	
	Jalgaon		36	4	40		1		3	+1	4	+1	
	Ahmednagar		46	16	62		1		4	-	5	+1	
Pune	Pune		43	NA	43		1		4	-	4	+1	
	Satara		16	NA	16		1		3	+1	4	+1	
	Kolhapur		21	NA	21		1		3	+1	4	+1	
	Sangli		22	NA	22		1		3	+1	4	+1	
	Solapur		34	NA	34		1		3	+1	4	+1	
Aurangabad	Aurangabad		15	10	25		1		4	-	4	+1	
	Jalna		12	11	23		1		3	+1	4	+1	
	Parbhani		20	8	28		1		3	+1	4	+1	
	Nanded		20	3	23		1		3	+1	4	+1	
	Osmanabad		34	12	46		1		3	+1	4	+1	
	Latur		17	13	30		1		3	+1	4	+1	
	Beed		25	12	37		1		3	+1	4	+1	
Amravati	Amravati		24	3	27	1		4	+1	4	+1		
	Akola		19	1	20	1		3	+1	4	+1		
	Yeotmal		15	1	16	1		3	+1	4	+1		
	Buldhana		14	NA	14	1		3	+1	4	+1		
Nagpur	Nagpur		44	5	49	1		4	-	4	+1		
	Bhandara		23	2	25	1		3	+1	4	+1		
	Godchiroli		14	NIL	14	1		2	+1	3	+1		
	Chandrapur		20	NIL	20	1		2	+1	3	+1		
	Wardha		15	3	18	1		2	+1	3	+1		
(TO BE FIXED)				88									
			700	200	900								
TOTAL			700	112	812		29		91	+23	114	+29	

Supply-based training planning: features & risks

- Trainer's and faculty's preferences determine training contents: HIS & job relevance may be lacking
- Delivery time is set by providers and may be inconvenient
- Use of SAR units may not match with actual requirements: duration, job types, volume, unit cost
- WB & PCS quickly satisfied, but disappointed at long term

Are you supply-oriented ?

Demand-based training planning: features & advantages

- Training responds to organizational weaknesses and changes (HIDAP & TNA)
- Courses are based on job descriptions and confirmed job training needs (TNA)
- Training volumes / targets match with available and sanctioned staff for each HIS function
- Delivery takes place at the doorstep: offices, sites, labs, divisions, circles etc.
- Course series and duration are manageable for the participants (and trainer)
- Delivery timing matches with physical progress, staffing, season
- Short term and long term satisfaction of WB & PCS
- Professional credibility of training teams (trainers and coordinators)

Are you demand-oriented ?

Unavoidable deviations from SAR

- Course titles will change: content & job
- Course may be shorter or split-up
- New courses will be added
- More than one delivery: refresher, new developments
- Targets will be lower or higher
- Unit cost will be lower or higher

Schedule your additional training development activities

Bring some logic in the planning chaos: *the Titanic experience*

You are adrift in the Atlantic Ocean. As a consequence of a collision with the iceberg & the subsequent fires, most of the contents are destroyed. The Titanic is slowly sinking.

Your location is unclear because of the destruction of critical navigational equipment. Your best estimates of the co-ordinates are that you are one thousand miles south – southwest of the nearest landmass. The only option is to get on the lifeboat, ration your cigarettes and keep the matches dry.

Listed below are fifteen items that are intact which you can carry with you. You are to rank the items in terms of their importance for your survival. Put 1 on the most important and so on till 15 on the least important

Items	Your ranking	Group ranking	Your final ranking	Experts' ranking	Differential rating
1. Sextant					
2. Shaving mirror					
3. Five-gallon can of water					
4. Mosquito netting					
5. One case of Army C rations					
6. Maps of the Atlantic Ocean					
7. Seat-cushion (flotation device)					
8. Two-gallon can of oil-gas mixture					
9. Small transistor radio					
10. Shark repellent					
11. Twenty square feet of opaque plastic					
12. One quart of 160-proof Jamaican rum					
13. Fifteen feet of nylon rope					
14. Two boxes of chocolate bars					
15. Fishing kit					
Total					

Step 2: Prepare your own training plan & calendar

1 Define courses and learning path per job

- What is the title: content, job reference
- Schedule max 1-2 weeks of uninterrupted formal training
- Split long courses in linked-up shorter courses (learning path: type 1)
- Sequence different courses for the same participants (learning path: type 2)

2 Cluster participants per course/job

- Local deliveries for smaller geographical area, basin
- Centralize for higher level data collection staff
- Plan for 10 – 15 participants per course

3 Consider sequence of courses deliveries

- Which jobs come first: bottom-up, top-down?
- Which regions come first?

4 Set dates

- When do you have your training and demo equipment?
- When is the job equipment procured and installed?
- Avoid hot season, monsoon, holidays and holy days
- Simultaneous deliveries, maybe?

5 There is more to plan than just deliveries:

- Training preparations, evaluations, administration
- Non-training activities in your work (% ??)
- Sanctioning of funds
- Timely announcements & gaps for nominations

Orissa SW training calendar

Training development and deliveries		1998									1999			Remarks	
		A	M	J	J	A	S	O	N	D	J	F	M		
1	Course on SW hydrometry for Junior engineers													Duration: 2 weeks	
	Target: 18														
	TNA Course Design														
	Module Production														
	Nomination & Sanctions														
	Course # 1 at WALMI - Cuttuck												▲	Course #1: 10 participants	
	Evaluation + Corrective action												----		
	Delivery for balance 8 participants planned for 1999-2000 at Bolangir														
2	Course on SW hydrometry for Observers + Gauge readers													Duration: 2 weeks	
	Target: 42														
	TNA Course Design														
	Module Production														
	Nomination & Sanctions														
	Course # 1 at WALMI - Cuttuck												▲	Course #1: 15 participants	
	Evaluation + Corrective action												----		
	Multiply + photocopy and handouts													----	
	Nomination & Sanctions													----	
	Course # 2 at Bolangir													▲	Course #2: 15 participants
Evaluation + Corrective action													----		
Delivery for balance 12 participants planned for 1999-2000															
3	Course on basic WQ sample collection, preparation & field analysis for Observers														
	Target: 10 (??)													Should it not be 18?	
	Delivery for these participants by CWC – WQ trainers planned for 1999-2000														

Maharashtra GW training calendar

Development and delivery activities		1998										1999			Remarks
		A	M	J	J	A	S	O	N	D	J	F	M		
1.	Course on GW hydrometry & WQ sample collection for Field observers													Course – 2 Weeks	
	G-1 Junior Geologist (Target 27)														
	TNA & detailed course design			----											
	Material production				----										
	Nomination and preparation				----										
	Pilot delivery #1 at WALMI, Aurangabad						▲								
	Evaluation & adoption of training						----								
	Multiplication of Modules and handouts						----								
	Delivery in 1 batch							▲							
NB	Balance deliveries for 29 participants to be planned for 1999 – 2000														
2	Refresher training in G.W. – W.Q for Field observers													Duration 4 days	
	G-1 (Jr.G.) Target 114													8 batches of 15 – 16 each at Regional level	
	TNA & detailed course material				----										
	Material production				----	----									
	Nomination and preparation					----									
	Rehearsal Session at Pune						▲								
	Evaluation & adoption material						----								
	Multiplication of Modules							----							
	Delivery in Konkan Regional office								▲						
	Delivery in Nasik Regional office								▲						
	Delivery in Pune Regional office								▲						
	Delivery in Aurangabad Regional office								▲	▲					
	Delivery in Amravati Regional office									▲					
	Delivery in Nagpur Regional office										▲				

Maharashtra GW training calendar

<i>Development and delivery activities</i>		1998										1999			Remarks
		A	M	J	J	A	S	O	N	D	J	F	M		
3.	Refresher training for supervisory officers in GW field practices													Duration 4 days	
	Target – 29 Senior Geologist + 88 Assistant Geologist = 117													8 batches each of 15/16	
	TNA & detailed course material					----									
	Material production					----	----								
	Nomination and preparation						----								
	Rehearsal Session							▲							
	Evaluation & adoption material							----							
	Multiplication of Modules							----	----						
	Delivery in Konkan Regional office										▲				
	Delivery in Nasik Regional office										▲				
	Delivery in Pune Regional office										▲				
	Delivery in Aurangabad Regional office										▲	▲			
	Delivery in Amravati Regional office											▲			
	Delivery in Nagpur Regional office											▲			

Example WQ training plan and calendar (Maharashtra) Page 1/2

Training development and deliveries		1998									1999			Remarks
		A	M	J	J	A	S	O	N	D	J	F	M	
1.	Basic field laboratory techniques of sample collection, preservation, transportation, field measurements													Duration 6 days
	Target 60 + 40 (GW + SW)													
	Module preparation			----	----	----								
	Nomination & preparation					---								
	Delivery at six sites : Nagpur							▲						
	Amrawati							▲						
	A'bad								▲					
	Nasik								▲					
	Kokan									▲				
	Pune									▲	▲	▲		
2.	Basic laboratory practices													
	Chemical analysis by Titrimetry													Duration 14 days
	Target : 10 (SW)													GW Staff does not require training
	Module preparation				----									
	TNA and course design					----	----							
	Nominations preparation						----	----						
	Delivery at one site (???)								▲					
3.	Basic laboratory practices on instruments													Duration 14 days
	Target 10 (SW)													GW Staff does not require training
	TNA and course design					----	----							
	Module preparation & nomination						----							
	Delivery at one site									▲				

Step 3: Secure implementation of your training plan & calendar

- Re-check accumulation of resources in busy months
- Review details with beneficiaries
- Get commitment, approval and package sanctioning from competent authorities
- Book training sites, venues, hosts and additional trainers
- Distribute course announcements for timely nominations
- What about the other implementation constraints ?

Share your doubts and find solutions in monthly training team meetings

- 1 Include your list of issues on next agenda.
- 2 Check progress in annual training plan and calendar.
- 3 Note new issues and constraints. Find corrective actions together. Be precise on who is doing what. Use format on next page.
- 4 Keep your training records up to date: trainees, trainers, institutes, course deliveries, evaluation results, module revision. Inform others: local & consultants.
- 5 Keep training development alive: newly emerging training needs, course re-design. Share / re-distribute standard materials with other trainers.

Training team action list

State: Place: Date:

No.	Issue	Agreed action	Taken by	Ready by

Training information

Incoming documents (Consultants/PCS)

1. Development status of all HIS courses
2. Prototype courses
3. Standard HP training modules
4. Directories: active institutes and trainers
5. Catalogues: postgraduate, study tours
6. Training history: monthly updates
7. Training coverage reports (MIS)
8. And: SMC and TC lists

Local files and outgoing data (TC & you)

- 1 Trainees: new & updates
- 2 Trainers / faculty: new and updates
- 3 Training institutes: providers, partners, hosts
- 4 Calendars & plans
- 5 Syllabi & course prototypes
- 6 Evaluations & corrective actions

1 Contents and relevance

Please indicate what specific improvements you made during these days:

- In *training development* I specifically improved in
-
- In *training planning* I specifically improved in
-
- In *communication skills* I specifically improved in
-
- Most training skills covered during the sessions were familiar to me and I did not learn anything new. I expected that more time would have been devoted to:
.....

Do you expect to confidently start playing your role as trainer and training initiator again, once you are back in your office ?

- No, because
- Yes, but in *training development* I still expect difficulties with
-
- Yes, but in *training planning* I still expect difficulties with
-
- Yes, but in *communication skills*, I still expect difficulties with
-

2 Facilitators

Please comment in key words on performance of the main HP facilitators:

	strong points	weaker points
S. Jagota		
H. Wittenberg		

3 Materials

Please comment on the materials used by the trainers and distributed to you (transparencies, handouts)

- They are good, because
- They are fine, but I suggest to improve
- They are disappointing, because

4 Logistics

Please comment on the logistics and organization during the past three days

- All arrangements were fine and I particularly appreciated
- I suggest the organizers pay more attention to
- I found the training logistics and management rather disappointing, specially.....

5 General

What improvements would you recommend for future similar ToT-II programmes in other States?

- 1
- 2
- 3

What is your overall rating of this ToT-II training course (circle one figure)

Excellent		Good		Medium		Poor		Bad	
10	9	8	7	6	5	4	3	2	1

Additional handouts, distributed during session

All (incl. STC & SMC)

Handouts: in blue folder, with label. Adapted for specific State

Completed trainer sheets (for updating) file:

Empty trainer sheets (for newcomers) file:

Right sequence Hum Panch family drama file:

Professional responses to Titanic experience file:

Map of Orissa file:

Course prototypes file:

Staffing worksheets: SW, GW, WQ (many spares) file:

Training calendar worksheets: SW, GW, WQ (3 domains x 5 copies) file:

Format for trainee registration (one each) file:

Training history, updated file:

List of SMCs with address and telephone number

List of TCs with address and telephone number

HP trainers visiting cards

Training issue sheets, extra working and aggregation copies

TCs & SMC only, 5 copies:

All HIS staffing requirements file:

Status report all HP courses, updated file:

Active institutes, training network, updated file:

Available, earlier state plans file:

Catalogue postgraduate training

Catalogue study visits in India

Extra

HP announcement letter, requirements letter, other relevant correspondence

Blank A-4 sheets

Pens

Note pads

Booklet: *Training your staff*

Check toolkit: masking tape, pencils, sharpeners, erasers, scotch tape etc

Right sequence of the Family Drama

- 6 On Saturday evening the Hum Panch family found that the T V and the cooler are not working. The mother suggested going to her sister's house. Father discovered that the battery is down and the car won't start. The family is really board.
- 7 Father said, "This is the first time in the past year when the battery is down and I will get it fixed on Monday." The uncle who also lives with them said, "These days our T V breaks down almost every week." Sister said, "Our cooler has broken down second time this season." The India – Pakistan ODI cricket match will be televised any time now. The family agreed to fix the T V first since none them wanted to miss the match.
- 3 The mother cursed the T V dealer saying, "We can get the T V repaired again, but I have been telling you all that our dealer is useless, he dumps all lousy products on us. We should not have bought the T V from him."
- 1 The uncle followed his sister- in- law and added his own version, "In fact, it is the Supreme brand which is itself bad. I know so many people whose Supreme brand T V has failed so often. Supreme people don't know how to make TV's."
- 8 The elder brother said, "Blaming does not help now, let us do something. Why not check the plug, the main switch and the T V speakers. Perhaps it has not been checked properly." He checked the plug etc. and found everything in order.
- 11 The little sister was even smarter than her elder brother. She said, "Perhaps, the channel is not correctly selected." She checked all the 36 channels, but no luck.
- 16 The little boy admonished his sister, "Don't fiddle with the channel."
- 13 The boy remarked, "Perhaps their is something wrong with the T V tower and probably it does not broadcast anything." He ran to the neighbor's house and found that the reception was crystal clear.
- 2 Finally, it was the turn of the father. He felt that the tuning knob might have been turned wrongly. So, he fiddled with the tuning knob, but no picture.
- 17 Then he ran to the terrace to check the antenna. He checked the wire, it ran from the top of the pole right into the house – no problem.
- 4 The father said, "Our T V picture and sound do not come, although the power supply is alright and the transmission also seems to be alright. The neighbor's have the picture and the sound in their T V.
- 18 He thought for a while and then plugged into the indoor antenna. The picture came but was hazy.
- 14 "There is definitely something wrong with the antenna," said the father. He ran up to the terrace to inspect the wire connection. He found the culprit just at the edge of the terrace. The sharp edge had cut the wire leaving it hanging by the insulation.
- 12 He discarded the portion of the wire and reconnected the new end to the antenna.

- 5 He put the insulation with thicker plastic where the wire rubbed on the sharp edge of the parapet wall.
- 15 The picture came bright and clear. The little boy said, “There is nothing wrong with either the dealer or our Supreme T V. Anyway, thank God.” The whole family celebrated for getting the T V fixed just in time for the cricket match.
- 20 The next morning the father went to the terrace and fixed the wire, tying it to the drain pipe, preventing it from dangling.
- 9 When they switched on the T V for the ODI cricket match, all of them laughed on how the entire family was cursing the T V, when nothing was wrong with it.
- 19 On Sunday when walked around the neighborhood, he saw the antenna wire rubbing on the parapet edge of Mr. Patel’s house.
- 10 He dropped in to say hallo and asked Mr. Patel does he have a problem with his T V. Mr. Patel said, “But of course, how did you know?” Then he told Mr. Patel how the dangling wire gets cut.
- 21 He along with Mr. Patel made plans to fix the latter's antenna wire.

The Titanic experience: professionals' response

1. Shaving mirror	<i>Getting external help is the first priority, used as a reflector to attract attention</i>
2. Two-gallon can of oil-gas mixture	<i>To get help is a priority, to make a fire & attract attention, but may not last to long</i>
3. Five-gallon can of water	<i>Seawater is not fit for human consumption, can survive only on water for seven days</i>
4. One case of Army C rations	<i>Basic rations are essential, but water takes precedence</i>
5. Twenty square feet of opaque plastic	<i>Means of protection against rain, wind, cold weather, one has to remain healthy to survive</i>
6. Two boxes of chocolate bars	<i>Army C rations will not last forever, handy source of calories, is a good option.</i>
7. Fishing kit	<i>Again, Army C rations & chocolate bars will not last forever, nature provides</i>
8. Fifteen feet of nylon rope	<i>For safety, to tie up self and the equipment on the life boat, in case of rough sea conditions</i>
9. Seat-cushion (flotation device)	<i>For safety, to keep afloat in case the lifeboat overturns</i>
10. Shark repellent	<i>Again for safety purpose, but a lower priority than 8 or 9 above</i>
11. One quart of 160-proof Jamaican rum	<i>Medication yes, merrymaking certainly not</i>
12. Small transistor radio	<i>May help to indicate land proximity</i>
13. Maps of the Atlantic Ocean	<i>Are of no real use in such a situation</i>
14. Mosquito netting	<i>Not required, no mosquitoes in subzero conditions, too flimsy to catch fish</i>
15. Sextant	<i>Of no use without a drawing board and other drawing equipment</i>

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