Strategy & Planning

Strategy, Logistics, Tactics

Comprehensive Work Plan

Project intervention and Strategy
"No plan, no control"
What? Who? When? Why? Where?
How Much? How Long?

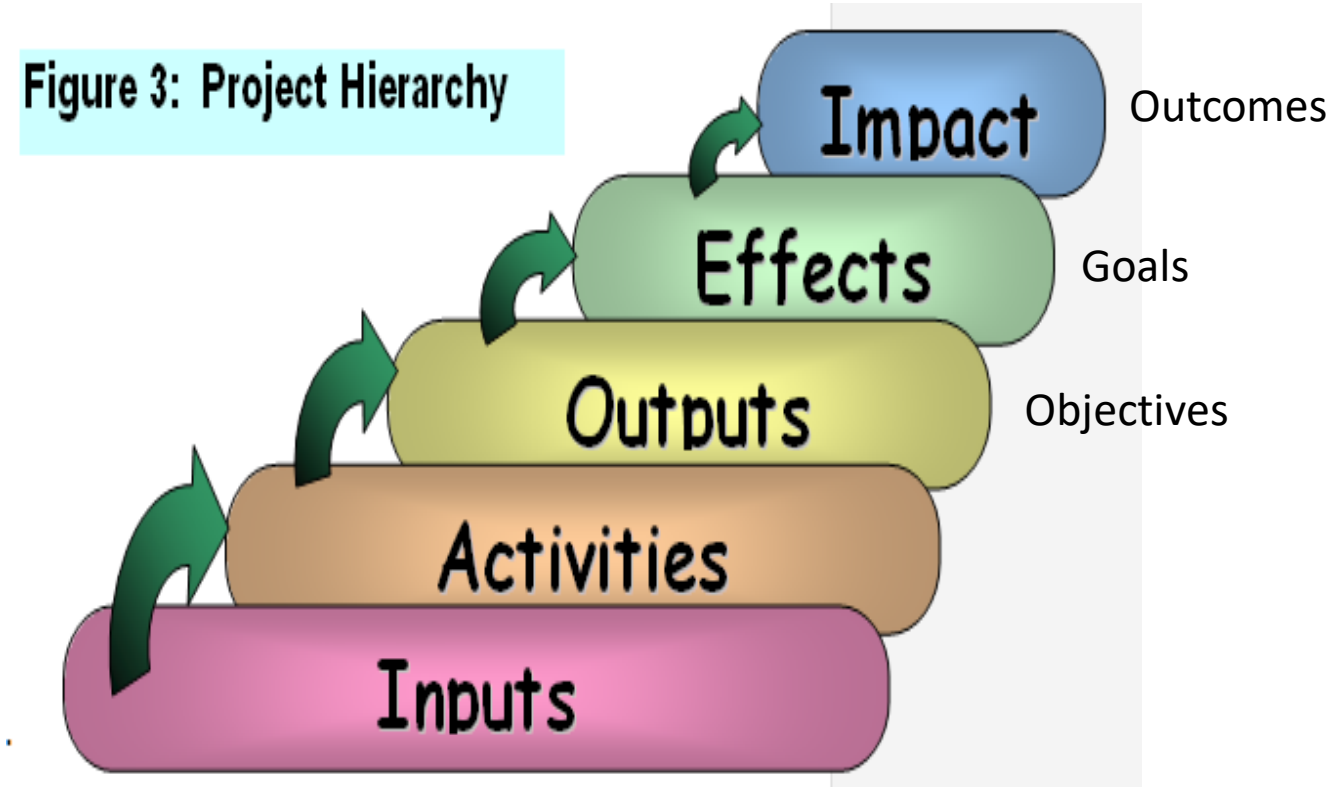
Planning

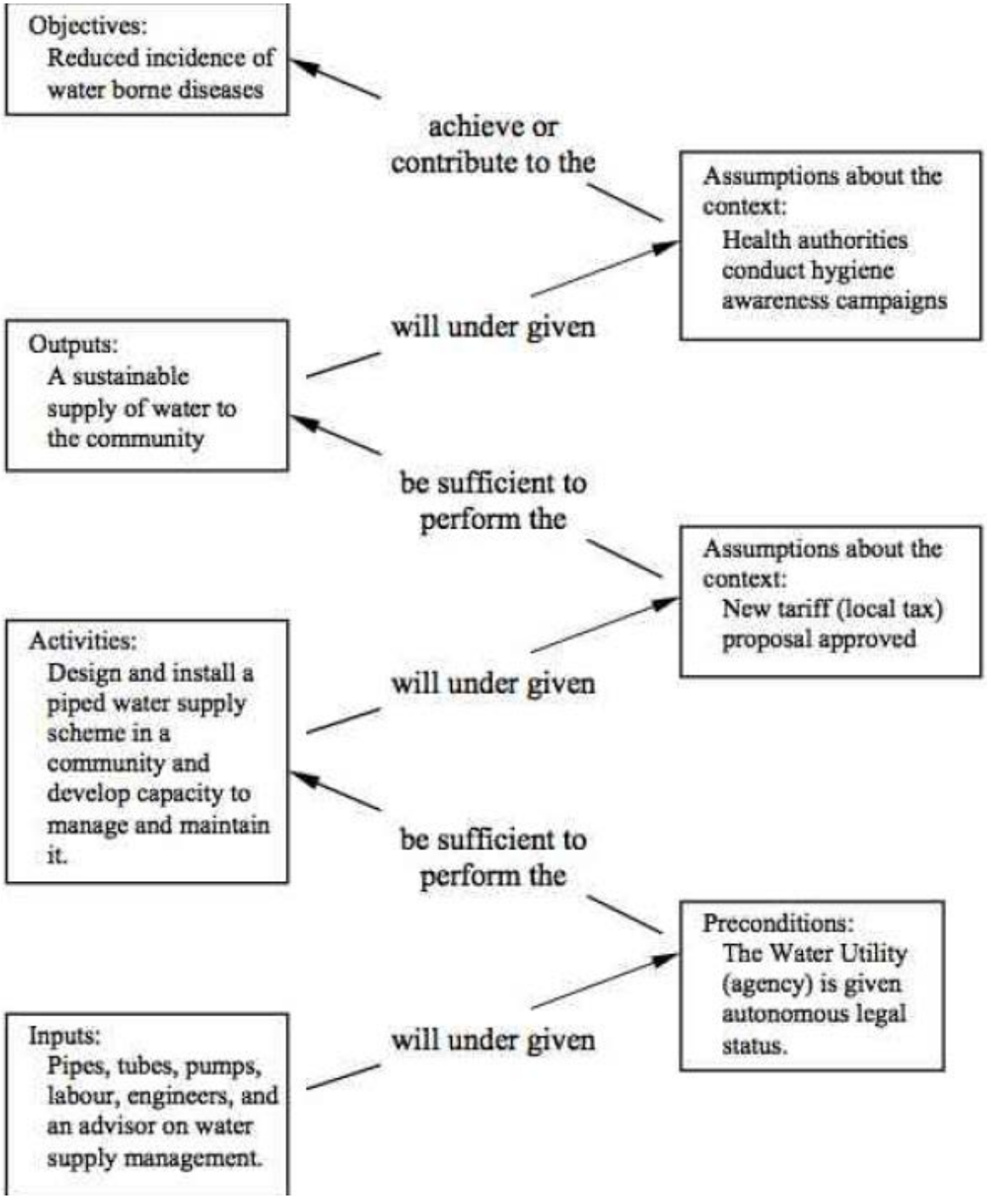
- Outcome: Select and recommend well thought off project interventions

- Strategy: Overall method to do the work
- Tactics: What? Who? When? Why? Where? How Much? How Long?
- Logistics: Making sure that we have materials, supplies at the right time and location

- A solution can be seen as a “strategic combination” of identified inputs, activities, and outputs (objectives) that produces effects and impacts

Logical Decision Framework




Objectives:
Reduced incidence of water borne diseases
achieve or contribute to the
Assumptions about the context:
Health authorities conduct hygiene awareness campaigns
will under given
Outputs:
A sustainable supply of water to the community
be sufficient to perform the
Assumptions about the context:
New tariff (local tax) proposal approved
will under given
Activities:
Design and install a piped water supply scheme in a community and develop capacity to manage and maintain it.
be sufficient to perform the
Preconditions:
The Water Utility (agency) is given autonomous legal status.
will under given
Inputs:
Pipes, tubes, pumps, labour, engineers, and an advisor on water supply management.

Logframe

Element	Explanation	Examples
Impact (outcome/aim)	Long-term fundamental changes in human well-being, organizations, and systems resulting from meeting goals	• Improved health status/well-being • Increased gender equity
Effects (goals/purposes)	Short-term and intermediate changes in human behaviors and systems resulting from meeting objectives	• Safe behaviors practiced • Improved health care and WASH • Improved services
Outputs (objectives)	Deliverables, products, and services created by conducting project activities	• Physical structures • Trained individuals • New institutions
Activities	Processes, technology, tools, and actions necessary to convert inputs into outputs and meeting objectives	• Construction • Installing equipment • Recruiting/training • Developing curriculum • Producing materials
Inputs	Resources necessary to undertake activities	• Money • Materials • Time • Personnel (expertise)

Outcome/Impact: *Improved household livelihood security through increased income opportunities and increased food security.*

Project Hierarchy		Indicators	Means of Verification	Assumptions
Goals	1. Improved standard of living of irrigators	1. 5 years after project: • 95% of Irrigators are able to meet their needs for food and are able to produce a surplus for sale. • 80% of irrigators have reduced their use of pesticides and fertilizers	1. • Community wide survey in project area 4-5 years after implementation when system operating at full potential by (NCDC)	1. • Baseline community wide survey in project area was carried out at beginning of project • Irrigated fields produce higher yields
	2. Provide electricity to homes	2. 10 years after project: • 30% increase in electricity production in Mabu	2. • Count number of houses with electricity available • Survey community members and identify trained personnel	2. • Community will continue to desire electricity for use in homes and businesses
	3. Support development of small businesses	3. 10 years after project: • 6-9 new businesses operating	3. • Count operating businesses began within the last 10 years	3. • Five year SDPs will continue and will be a long term data source

SMART Goals and Objectives

S- Specific	Is the goal clear in terms of what, how, when, and where the situation will be changed?
M- Measurable	Are the targets measurable (e.g., how much of an increase or how many people)? What evidence will there be of goal achievement?
A- Area Specific	Does the goal delineate an area (village, province, agricultural zone) and/or a population group (gender, age, ethnic, occupational group)?
R-Realistic	Is the project able to obtain the level of involvement and change reflected in the goal statement? Is it reasonable to expect to produce this degree of change, based on past experience under similar conditions, with the level of resources available?
T- Time Bound	Does the goal reflect a time period in which it will be accomplished?

Logframe Indicators

Measurable	Indicators should be measurable by the use of specific quantifiable variables and/or through other factual, objective evidence obtained through qualitative methods.
Technically Feasible	The indicators should be capable of being assessed or measured with the skills available.
Reliable	Conclusions based on these indicators should also be verifiable or objective if measured by different people at different times and under varying circumstances.
Valid	Indicators should be capable of measuring the phenomena.
Relevant	Indicators should apply to project objectives at the appropriate level in the hierarchy.
Sensitive	They should be sensitive to changes in the situation being observed.
Cost-Effective	Information obtained should be worth the time and money involved to procure it.
Timely	It should be possible to collect and analyze and report the data in a reasonable period of time.

Project Hierarchy		Indicators	Means of Verification	Assumptions
Sub-Goals	1.1 Increased crop yields and irrigator incomes 1.2 Reduce use of chemical pesticides and fertilizers 1.3 Technical and Environmental Sustainability	1.1 Five years after end of project: • 25% increase in number of ropanis receiving water from irrigation canals • Exceed or achieve project IRR and timely loan repayment • 25% reduction in instances of disruptions to the irrigation system • 30% reduction in usage of chemical pesticides and fertilizers	1.1 • Direct observations of land usage and canals • Survey farmers • Soil chemical tests • Purchase receipts	1.1 • Disruptions to irrigation system are caused by poor maintenance practices • Surveys will result in reliable data as to pesticide usage • Able to determine levels of disruption to system prior to project
	2.1 Electric lighting available for all homes served by pico hydro system and other electric appliances supported in subset of homes	2.1 Five years after end of project: • Electric lighting available in 75% of homes not previously lit • Electric amenities available in 50% of homes • 10 electric blenders available within given community for use in shared applications or private enterprise	2.1 • NCDC surveys and photographs of homes served by system to count number of homes served with various electric appliances	2.1 • Electric cook-tops will provide incentive for community members to pursue electricity • Pico-hydro system will be properly maintained by community
	3.1 Growth of small businesses using both electricity and mechanical shaft energy	3.1 One small business using mechanical shaft energy at each plant		3.1 • Community members will pursue small businesses using the pico hydro system • Users willing to pay electric fees for system maintenance

Project Hierarchy		Indicators	Means of Verification	Assumptions
Outputs	1.1.1 Irrigation canals built 1.1.2 Maintenance workers trained to operate and repair canals and picohydro system	1.1.1 • 3 canals built at project completion 1.1.2 • 12 - 15 workers completed training program at time canals are completed	1.1.1 Observation by SCD team, EWB Nepal, or NCDC	1.1.1 • Records from training programs exist • Knowledge of alternatives will result in changed behaviors
	1.2.1 Behavior change campaign created for pesticide use	1.2.1 • 3 training workshops held for farmers and posters and brochures distributed throughout town	1.2.1 • Training program records • Surveys of farmers	
	2.1.1 Pico-hydro system installed 2.1.2 Transmission lines for distribution built	2.1.1 • 2-3 picohydro plants built per canal 2.1.2 • Transmission lines built for each picohydro unit	2.1.1 • NCDC surveys and photographs of plants 2.1.2 • NCDC surveys and photographs	2.1.1 • Head and flow are sufficient for system
	2.1.3 Behavior change campaign created for: • electric appliance • technology adoption	2.1.3 • All houses served received training for use of electric appliances	2.1.3 • NCDC surveys and photographs	2.1.3 • Community members will discontinue use of kerosene lamps and firewood and utilize electric lighting and burners, respectively
	3.1.1 Business training programs 3.1.2 Microloans for entrepreneurs	3.1.1 • 50 -60 people trained in new business development		3.1.1 • Community members will invest microloans in new businesses

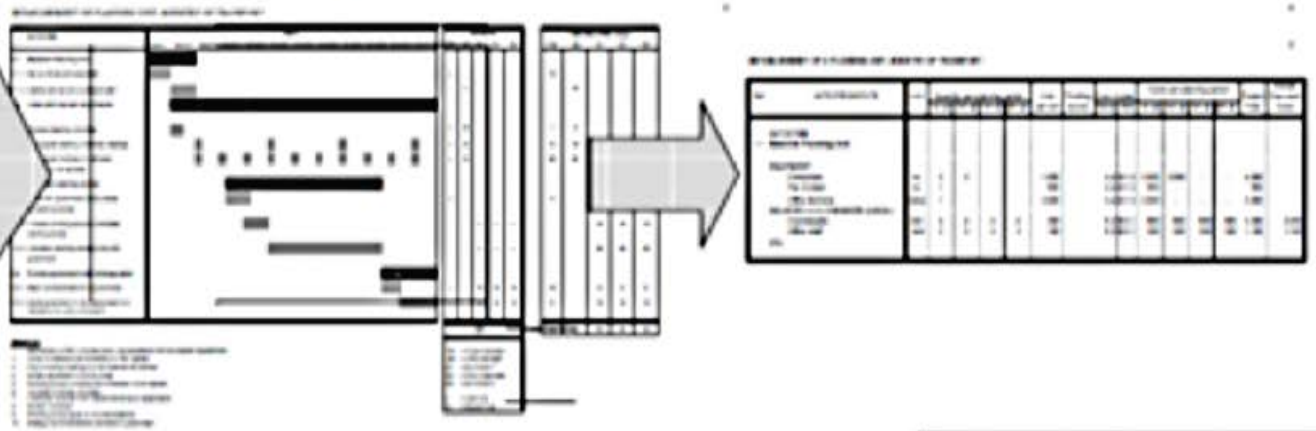
Project Hierarchy		Assumptions
Activities	1.1.1 Irrigation Canals: • 1.1.1.1 Site selection and mapping • 1.1.1.2 Sizing and demand modeling • 1.1.1.3 Source labor and materials • 1.1.1.4 Design and build irrigation canal 2.1.1/2.1.2 Pico-Hydro System: • 2.1.1.1 Site selection and mapping • 2.1.1.2 Sizing and demand modeling • 2.1.1.3 Select picohydro unit • 2.1.1.4 Source labor and materials • 2.1.1.5 Design housing and transmission • 2.1.1.6 Install systems • 2.1.1.7 Build transmission lines 1.1.2 Maintenance Training 1.2.1.1 Train community members in canal maintenance practices 2.1.3.1 Train electric maintenance workers 1.2.1/2.1.3 Behavior Change: • 1.2.1.1 Develop messages for change (reduce chemical pesticides and fertilizers) • 1.2.1.2 Hold workshops for farmers • 2.1.3.1 Develop messages for change (electricity adoption) • 2.1.3.2 Develop posters and brochures • 2.1.3.3 Hold workshops for electricity use 3.1.1. Business Training • 3.1.1.1 New business training for local community 3.1.2 Microloan Program • 3.1.2.1 Develop structure for microloan distribution	All data necessary to design picohydro/canal system will be collected Irrigation Canals/Pico-Hydro System Firms/NGOs exist with proper experience for designing and building a canal based picohydro system Timely acquisition of funding and materials A sufficient number of community members will want to train to become maintenance technicians Community members will remain engaged in the program and will participate in behavior change activities Community interest in the project remains high

Logframe

Strategy

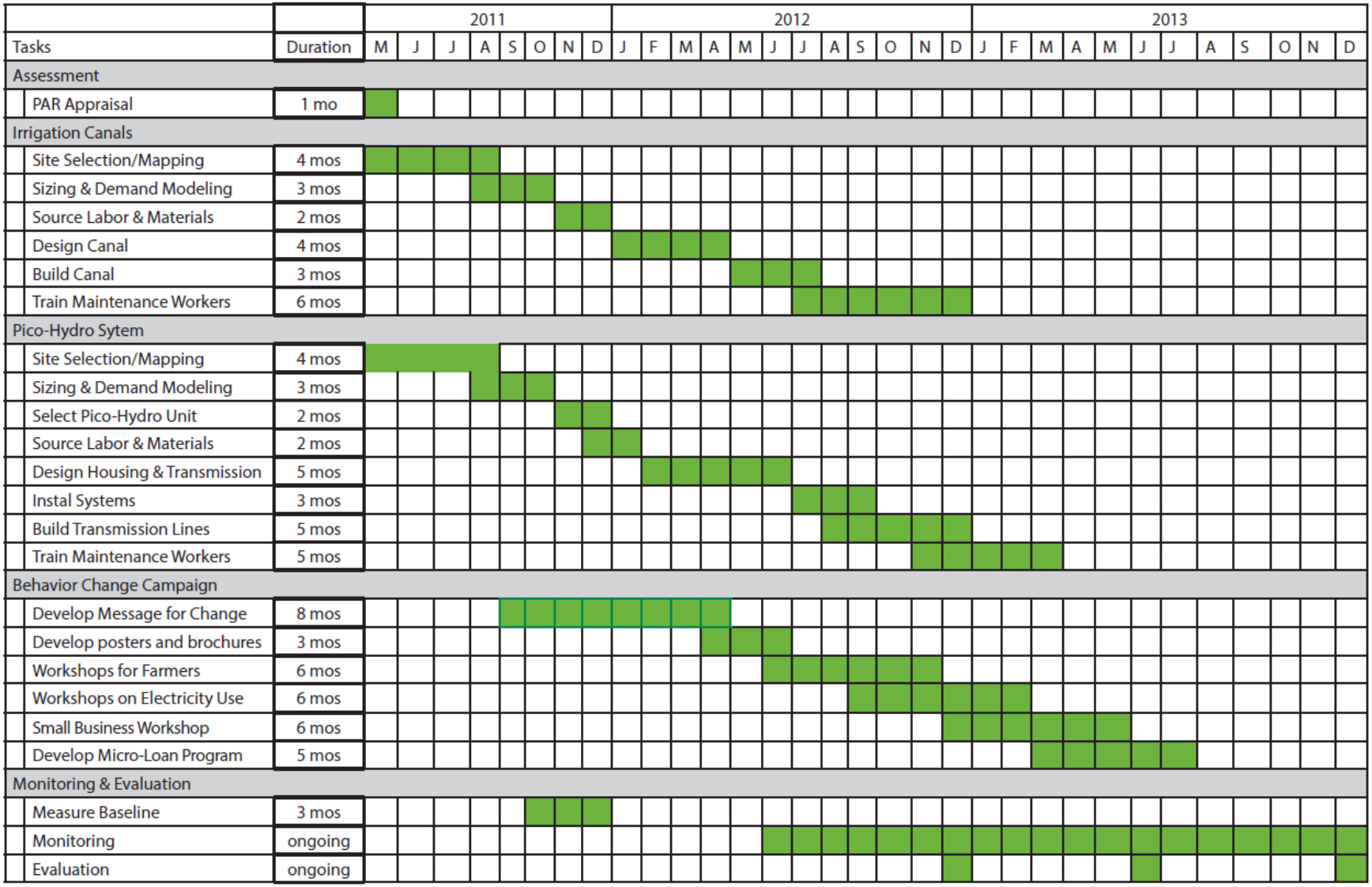
Results-based Activity Schedule

Results-based Resource Schedule



Logistics, Tactics

Quality Planning


2011
2012
2013
M J J A S O N D J F M A M J J A S O N D J F M A M J J A S O N D
Tasks
Duration
Assessment
PAR Appraisal
1 mo
Irrigation Canals
Site Selection/Mapping
4 mos
Sizing & Demand Modeling
3 mos
Source Labor & Materials
2 mos
Design Canal
4 mos
Build Canal
3 mos
Train Maintenance Workers
6 mos
Pico-Hydro Sytem
Site Selection/Mapping
4 mos
Sizing & Demand Modeling
3 mos
Select Pico-Hydro Unit
2 mos
Source Labor & Materials
2 mos
Design Housing & Transmission
5 mos
Instal Systems
3 mos
Build Transmission Lines
5 mos
Train Maintenance Workers
5 mos
Behavior Change Campaign
Develop Message for Change
8 mos
Develop posters and brochures
3 mos
Workshops for Farmers
6 mos
Workshops on Electricity Use
6 mos
Small Business Workshop
6 mos
Develop Micro-Loan Program
5 mos
Monitoring & Evaluation
Measure Baseline
3 mos
Monitoring
ongoing
Evaluation
ongoing

System Component	Required Materials	Required Tools	Labor Source	Estimated Cost
Pico-Hydro System				
Headword diversion	Wire mesh, stone cement grout	Hammer, wire cutters, shovels, wheelbarrow	Mason, community members, NCDC Surveyor	$4,500
Headword offtake	Stone masonry	Hammer, chisel, whellbarrow	Community members	
Transport canal	Packed earth	Shovels, wheelbarrows, lumber for framing, saw, string, stakes	Community members	
Foreby/Settling basin	Stone Masonry		Community members	
Penstock	HDPE pipe	Saw, hammer, hot joining plate	Pipe joiner, mason community members, NCDC surveyor	
Powerhouse	Lumber for framing, corrugated metal, fasteners	Saw, sheet metal cutters, hammer, screwdriver	Carpenter, mason, community members	
Turbine (8.5 kW)	Pelton wheel, nozzle injector	Hammer, screwdriver, wire strippers, wrenches, voltage tester	Electrician, engineer, community members	$3800
Generator	3phase induction motor used as a generator		Electrician, engineer, community member	$600
Voltage Regulator	240V regulator		Electrician, engineer, community member	$700
Transmission Lines	Aluminum wire (ACSR) wooden poles, concrete	Shovels, wheelbarrow, wire cutters, hammers, saws, voltage tester	Electrician, engineer, community member	$5750

Stakeholders	Stage of project	Interests	Strengths	Weaknesses	Risks/ Fears	How will they influence the project?	How can the project engage the stakeholder?	Priority for involvement	Assumptions
Farmers	Design/Ops Maintenance	Increased income Time savings	knowledge of land/agriculture source of labor access to funds/loans	resistance to change equity issues/ conflicts	weather/ crop failure	have to accept the system rely on them for maintenance	market the electricity partand reliability parts of project	High	overestimate how useful technology is
Electricity Consumers	Design/ Ops Maintenance	Access to electricity (higher productivity, education, prestige)	willingness to pay early adopter effect	resistance to change equity issues/ conflicts	safety issues	demand will drive system design	rely on focus groups, both before and during project	High	people will want electricity in the home
Small Business Owners	Ops & Maintenance	New income or increased opportunities	innovation access to funds	Over-consumption not community-oriented	business failure rapid growth exceeding capacity	rely on businesses as a long-term funding source (esp for expansion)	special rate for businesses seminars on business training	High	entrepreneurs in Mabu will start businesses
Maintenance Staff	Ops & Maintenance	Job opportunities	desire to learn	lack of technical knowledge	maintenance gets ignored corruption	long term success relies on good maintenance practices	provide salaries and training for interested people	High	people want to become maintenance workers/ have ability
Local Gov't. (VDC)	Design/ Ops Maintenance	Re-election Improvement of village	access to technical experts, government agencies, communication	limited financial resources conflict between wards	corruption	need their approval, help set up structure for fees	through meetings, with NCDC as coordinator	High	VDC willing to make time for this project
NCDC	Design/ Ops Maintenance	Improvements to Mabu Increased village sustainability	access to technical experts resource for community assessment/ planning access to funds	not located in community	may prioritize other projects	need their support (financial and technical) to initiate project	coordinate through project mentor	High	NCDC supports this project, wants design work done
Current Pico-Hydro System Owners	Design	Preserve customer base, opportunity for expansion	established operation practical technical knowledge local to community	greed/limited capital/fear of competition	may oppose project	may use their influence to hinder project/can offer valuable advice and partnership if support	friendship/ partnership/asking advice	Medium	Systems are still operating/we will be able to overcome any opposition
Water Rights Owners	Design	Water abstraction for which they get no benefit	control of water source	greed	may withhold water access	may stop project, or impose strict regulations	friendship/partnership/determine ways of benefiting owners	High	Will allow water access, will be reasonable

Other activities

- Planning of management activities: quality control, reporting, budget control, and staff. Human, physical, and financial resources necessary to undertake the management activities need to be outlined, procured, and mobilized.
- Contingency analysis
- Project quality planning: assurance, control, improvement
- Project impact assessment

Success of the operational plan does not rely on engineering solutions alone.

Need to consider changes in community behavior
(Behavior Change Communication)

Behavior Change Communication- Strategy

- Identify the motivators for change in behavior and barriers that have the potential to prevent or slow down change;
- Review existing forms of behavior including possible competing ones and their levels of penetration;
- Weigh the benefits of alternative forms of behavior, their impact, and their possible levels of penetration;
- Outline the dominant methods of communication that are most likely to be effective within the target audience and its components and their probability of success; and
- Identify resources available and needed to reach out to the target groups.

Behavior Change Communication - Plan

- Implementation of methods
- Monitoring and evaluation
- Corrective actions

- Use “self-reinforcing” habit loops
  - Prompt and clues
  - Commitment
  - Rewards

BCC Example in Nepal

Areas of Change

- Farming co-ops
- New markets and transport methods
- Less chemical pesticide and fertilizer use
- Off-season farming
- Water conservation - drip irrigation
- Canal maintenance

Methods & Capacity for Change

- Farmer training workshops
- Posters and brochures
- School educational component
- Demonstration and informational sessions of technology and methods at Mabu yearly fair

Motivators for Change

- Power of many, price stability, etc.
- Better long term soil quality, less pollution
- Higher yields, etc.
- More income, better nutrition
- More water available, help environment
- Canal will provide lasting benefit
- More income at better markets